PIONEER®
The future of sound and vision.

LASER JUKE

NTSC

Operating Instructions
Mode d'emploi
Bedienungsanleitung
Istruzioni per l'uso
Manual de instrucciones

LC–V20/LC–V20–K
VIDEO DISC AUTOCHANGER
CHANGEUR AUTOMATIQUE DE DISC VIDEO
BILDPLATTEN-AUTOMATIKWECHSLER
LETTOR DI VIDEO DISCHI CON CAMBIAMENTO AUTOMATICO DEL DISCO
CAMBIADOR AUTOMÁTICO DE VIDEODISCOS

LJ–V20/LJ–V20–K
SELECTION COMMANDER
CONSOLE DE SELECTION
TITELWAHL-BEDIENTEIL
SELETTORE DEI TITOLI
CONTROLADOR DE SELECCIONES

CB–V2520/CB–V2520–K
LASER JUKE SYSTEM RACK
PACK POUR LASER JUKE
LASER JUKE-SYSTEMGESTELL
SCAFFALE SISTEMA LETTORE LASER
BASTIDOR DEL SISTEMA REPRODUCTOR DE VIDEODISCOS LÁSER

CB–V2530
LASER JUKE MONITOR STAND
SUPPORT POUR MONITEUR
GESTELL FÜR LASER JUKE-MONITOR
SUPPORTO MONITOR LETTORE LASER
SOPORTE DEL MONITOR DEL REPRODUCTOR DE VIDEODISCOS LÁSER

CB–V2540
SELECTION COMMANDER STAND
SUPPORT POUR CONSOLE DE SELECTION
GESTELL FÜR TITELWAHL-BEDIENTEIL
SUPPORTO SELETTORE DEI TITOLI
SOPORTE DEL CONTROLADOR DE SELECCIONES

CB–V2560
SELECTION COMMANDER WALL MOUNT KIT
KIT DE MONTAGE POUR CONSOLE DE SELECTION
WANDMONTAGESATZ FÜR TITELWAHL-BEDIENTEIL
CORREDO PER IL MONTAGGIO A MURO DEL SELETTORE DEI TITOLI
JUEGO DE MONTAJE EN LA PARED DEL CONTROLADOR DE SELECCIONES

English
Français
Deutsch
Italiano
Español

IMPORTANT 1

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT 2

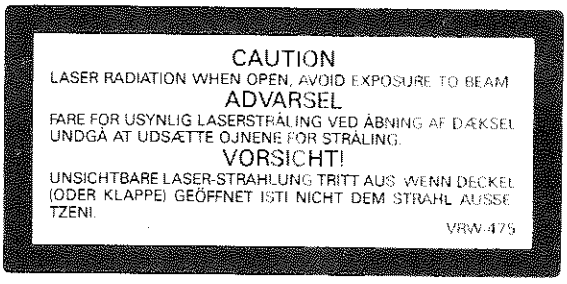
CAUTION

This product containts a laser diode of higher class than 1. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product.
Refer all servicing to qualified personnel.

The following caution labels appear on your videodisc autochanger:

Location: On the rear panel of the videodisc autochanger

On the top of the video disc autochanger


CAUTION
LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO BEAM
ADVARSEL
FARE FOR USYNLIG LASERSTRÅLING VED ÅBNING AF DÆKSEL UNDGÅ AT UDSÆTTE ØJNENE FOR STRÅLING.
VORSICHT!
UNSICHTBARE LASER-STRAHLUNG TRITT AUS WENN DECKEL (ODER KLAPPE) GEÖFFNET IST! NICHT DEM STRAHL AUSSE TZEN!.
VRW-479

IMPORTANT 3

If the apparatus is fitted with AC mains power outlet(s), see REAR PANEL FACILITIES for convenient connection of additional Hi-Fi component(s). Make all connections to the AC outlet(s) and the signal terminals first. Connect the plug to the wall socket last, make sure that the power switch is off.

FOR USE IN THE UNITED KINGDOM

The wires in this mains lead are coloured in accordance with the following code:

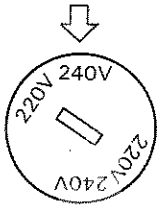
Blue: Neutral
Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured marking identifying the terminals in your plug proceed as follows
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.
Equipment sold in the U.K. is not supplied with a power plug.

LINE VOLTAGE SELECTOR SWITCH

A 2-point (220V/240V) voltage selector switch is located on the front panel in the door of the videodisc autochanger.
Check that it is set properly before plugging the mains lead into an AC outlet. If the voltage is not properly set or if you move to an area where the voltage supply differs, adjust the selector switch as follows:

1. Disconnect the mains lead.
2. Use a medium-sized (flat blade) screwdriver. Insert the tip of the screwdriver into the groove of the selector switch and turn it to set the videodisc autochanger to the power voltage of your area.



Point arrow to power voltage of your area (Figure shows arrow pointing to 240 volts.)

"This product is manufactured to comply with the radio interference requirements of EEC Directive 76/889/EEC and 82/499/EEC."

ADVARSEL
LITHIUMBATTERI, EXSPLOSIONSFARE. UDSKIFTNING MA KUN FORETAGES AF EN SAGKYNDIG, OG SOM BESKREVET I SERVICEMANUALEN.

Thank you for buying this Pioneer product.
Please read through these operating instructions so you will know how to operate your model properly.
After you have finished reading the instructions, put them away in a safe place for future reference.
In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

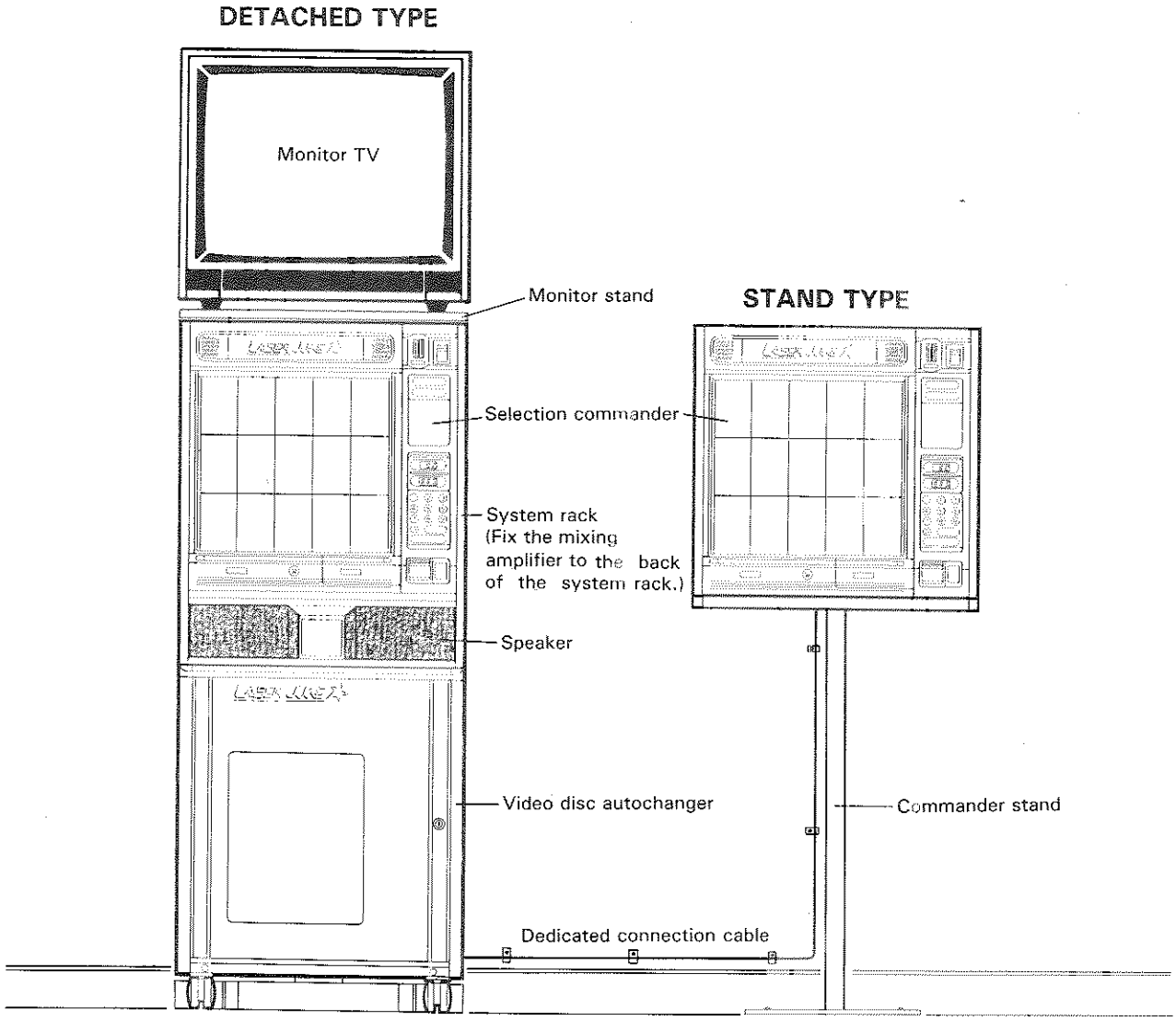
FEATURES

* The selection commander is separated from the video disc autochanger to allow flexible installation.
* Small and space-saving
* One video disc autochanger can be connected to up to three selection commanders.
* Maximum 99 music pieces can be reserved.
* This product can be set music that is prohibited to play.
* The promotion play function can be set.
* Maintenance is easy.

CONTENTS

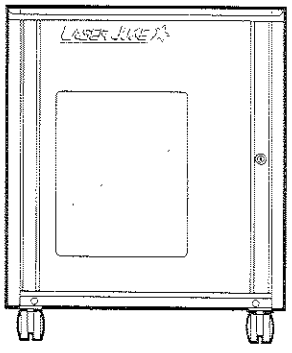
LASER JUKE SYSTEM 4
CAUTIONS ON INSTALLATION AND HANDLING 6
INSTALLATION (1) CAUTIONS ON INSTALLING THE SYSTEM RACK AND RELATED EQUIPMENT 7
INSTALLATION (2) CAUTIONS ON INSTALLING THE MONITOR STAND AND RELATED EQUIPMENT 10
INSTALLATION (3) CAUTIONS ON INSTALLING THE SELECTION COMMANDER STAND AND RELATED EQUIPMENT 11
INSTALLATION (4) CAUTIONS ON INSTALLING THE SELECTION COMMANDER WALL MOUNT KIT AND RELATED EQUIPMENT 12
INSTALLATION (5) SYSTEM CONNECTION 13
INSTALLATION (6) CONNECTING THE COMMUNICATION CABLES OF THE SELECTION COMMANDER AND VIDEO DISC AUTOCHANGER 14
DISC INSTALLATION 16
CASTER LOCK AND SAFETY MEASURES AGAINST TOPPLING CAUTIONS ON INSTALLING THE VIDEO DISC AUTOCHANGER, SELECTION COMMANDER AND RELATED EQUIPMENT 17
ATTACHING THE MENU SHEET 17
HANDLING THE COIN BOX 18
NAMES AND FUNCTIONS OF EACH PART 19
DIP SWITCH SETTING 21
OPERATOR MODE 23
FUNCTION FOR INDICATING THE SETTING STATUS 27
SCREEN DISPLAY BETWEEN PLACES OF MUSIC 30
MUSIC SELECTION 31
PRINTER OPERATION 32
MAINTENANCE 35
ASSEMBLY DRAWING (1) SYSTEM RACK 36
ASSEMBLY DRAWING (2) MONITOR STAND 37
ASSEMBLY DRAWING (3) SELECTION COMMANDER STAND 38
NAMES OF ASSEMBLY PARTS 39
SPECIFICATIONS 40

LASER JUKE SYSTEM



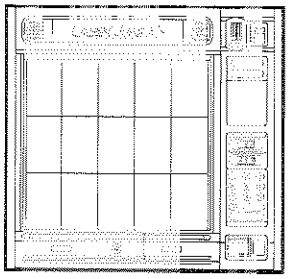
Video disc autochanger

LC-V20/LC-V20-K



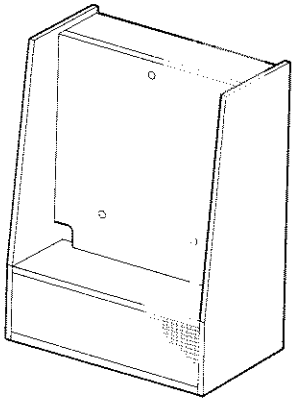
Selection commander

LJ-V20/LJ-V20-K

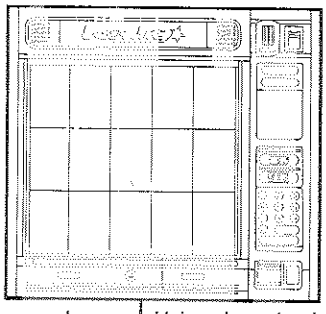


Laser juke system rack

CB-V2520/CB-V2520-K



WALL-MOUNT TYPE



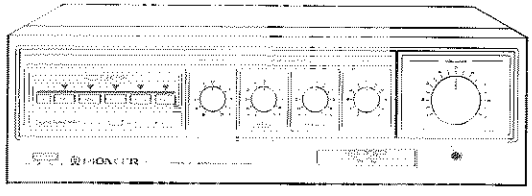
Selection commander

Using the selection commander wall mount kit.

Dedicated connection cable

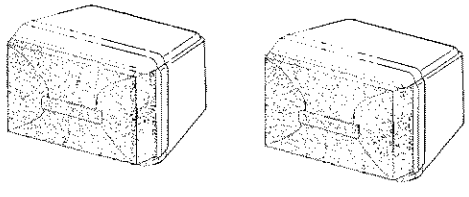
Mixing amplifier

SA–V190



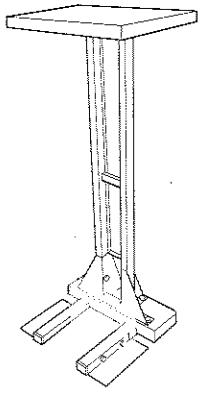
Speaker system

CS–V150



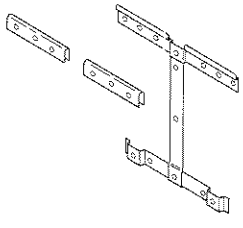
Laser juke monitor stand

CB–V2530



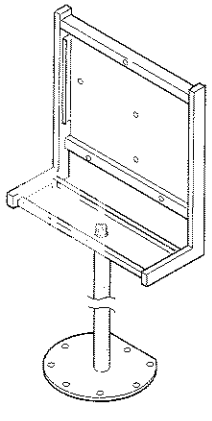
Selection commander wall mount kit

CB–V2560



Selection commander stand

CB–V2540



CAUTIONS ON INSTALLATION AND HANDLING

Select a horizontal and stable place. Avoid the following:

① Place exposed to direct sunlight
② Near a toilet or kitchen
③ Place exposed to a spotlight
④ Near a refrigerator, dimmer, air-conditioning equipment or other large electrical appliances
⑤ Near neon signs
⑥ Non-horizontal place with a weak floor
(Select a floor that can withstand a static load of 250 kg minimum. Where the floor is not horizontal, insert a hard plate or something similar beneath the casters.)
⑦ Place where it is difficult to carry out coin collection, servicing or maintenance.

Condensation

In winter, if this system is brought from outdoors into a heated room or the temperature of the room where this system is installed is raised quickly, the operation unit or lens will be covered in condensation.
When covered in condensation, this system cannot read and play laser beam signals.
Keep this system at room temperature for one to two hours depending on the degree of condensation and the condensation will evaporate, making this system ready for playing.
Other symptoms similar to condensation may also occur at places exposed directly to a cooler or air-conditioner in summer. In such a case, move this system to another location.

Do not transport the autochanger with discs inside.

Special cautions on setting

① **Power capacity**
Supply power from a wall outlet that allows a safe supply of power equal to or more than the total power consumption of all equipment you will use.
② **Connection cord**
Prevent the weight or tensile force of the cord from being applied to the plug of the connection cord.
③ **Grounding**
Where no earth leakage breaker is available, connect the grounding conductor to the earth.
④ **Color monitor**
Demagnetize the color monitor.
⑤ **Confirmation after setting**
Be sure to confirm the following:
- Casters are locked.
- The coin rate is properly set.
- The menu sheet matches the discs.
- The speaker phase is properly set and the right and left speakers are positioned properly.

- A combination of the laser juke monitor stand and the monitor TV weighs about 90 kg.
- The combination of the selection commander stand and the selection commander weighs about 55 kg.
- The combination of the selection commander wall mount kit and the selection commander weighs about 40 kg.

Make sure that the structure, material and strength of the wall and floor on which to install this system are sufficient before fixing it to the wall and floor.

Our company will not be responsible for any accident or other damage due to an improper fixing condition, fixing with insufficient strength, accident, or other similar circumstances.

CAUTION ON HANDLING THE STANDS, WALL MOUNT KIT AND RACK.

- Some parts are heavy while others are sharp-edged. On assembling, wear gloves and handle the parts with care.
- Tighten the screws securely.
- Entrust the task of fixing the stand, etc. to a professional installer who will fix it in accordance with the floor condition.
- Before assembling the stand, etc., lay a carpet or old blanket on the portion of the floor where you wish to do the assembly work. This protects the floor and stand, etc. from damage.
- Use the stands and wall mount kit in close contact with the wall.
- After mounting the Laser juke system rack on the video disc autochanger, be sure to connect and fix using screws.

For the names of assembly parts, see page 39.

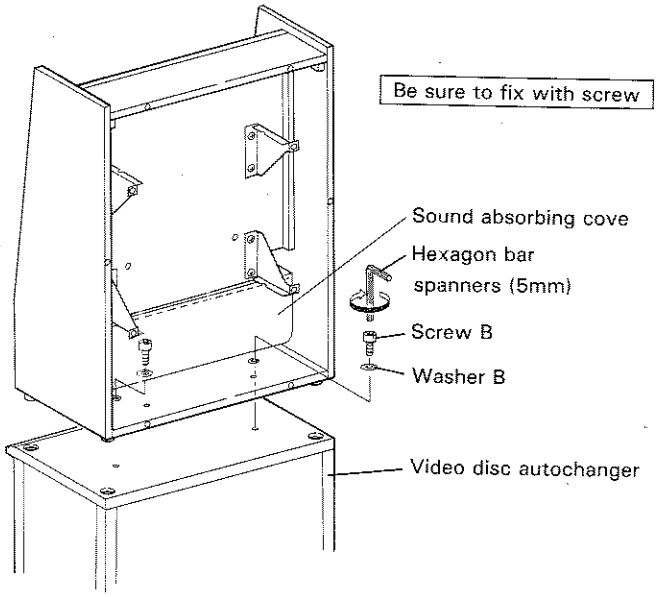
INSTALLATION (1)

CAUTIONS ON INSTALLING THE SYSTEM RACK AND RELATED EQUIPMENT

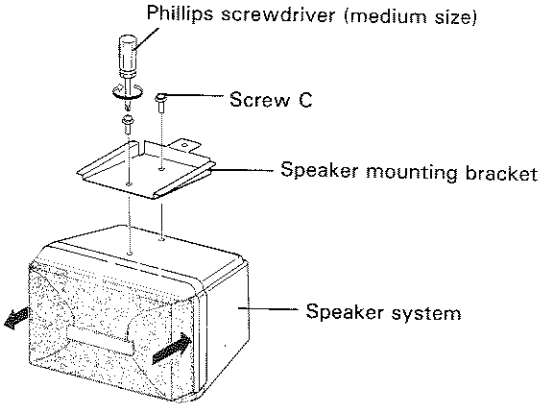
◎ For how to assemble each component, see the assembly drawing (page 36).

1 Fix the system rack to the video disc autochanger.

- Mount the system rack on the video disc autochanger.
- Fix the system rack to the video disc autochanger using the two system rack-fixing screws.



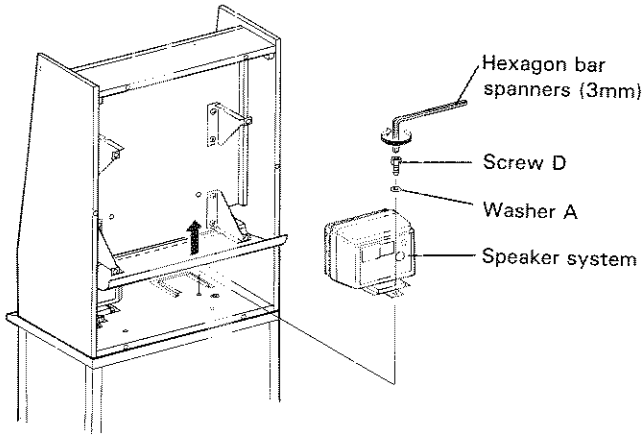
2 Fix the mounting brackets to the speaker system.



Remove and replace the speaker system grill net so as to orient the name plate in the direction shown in the above figure.

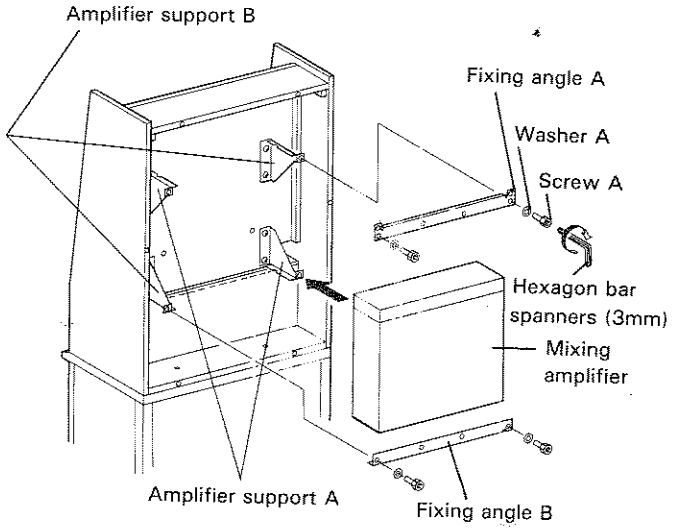
3 Fix the speaker system to the system rack.

- Fit the speaker system to the system rack supports and attach it using fixing screws.



4 Fix the mixing amplifier to the system rack.

- Mount the mixing amplifier on the amplifier supports at the back of the system rack.
- Fix the mixing amplifier using fixing angles. Use the same screw A and washer as those used for removing fixing angles A and B.

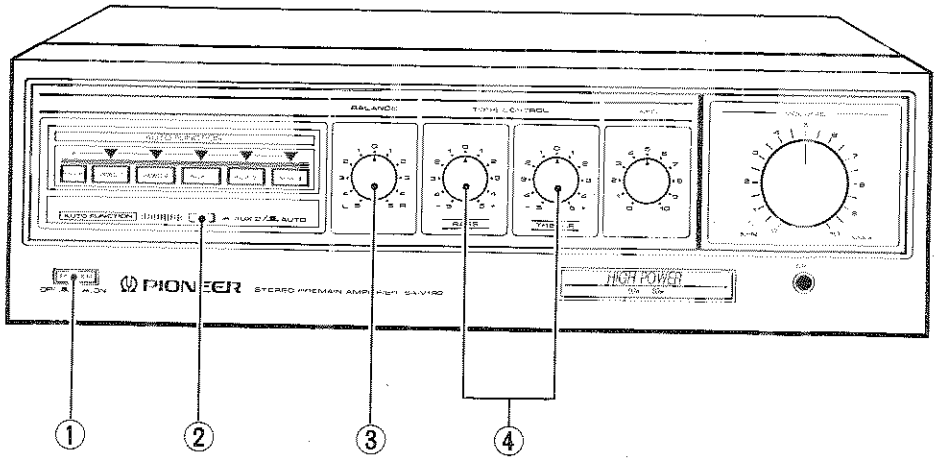


5 Set each switch on the mixing amplifier.

- Setting the mixing amplifier (SA–V190)

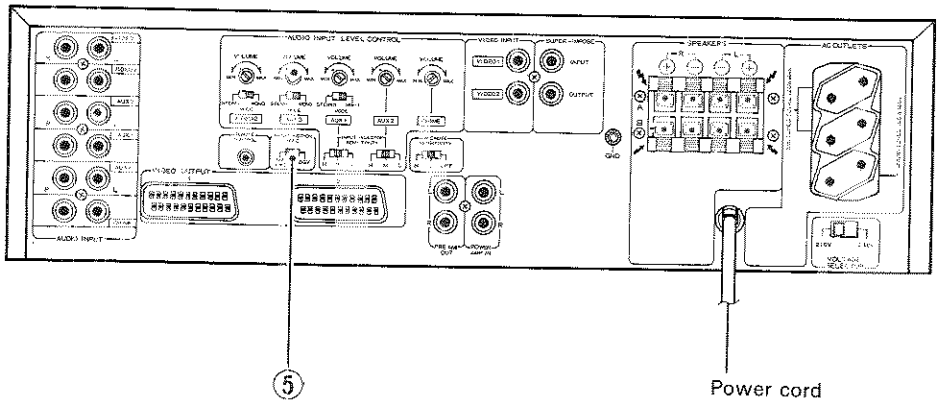
[Front panel]

- Turn on POWER switch ①.
- Set AUX2/AUTO ② to AUTO.
- Set ③ and ④ to CENTER.



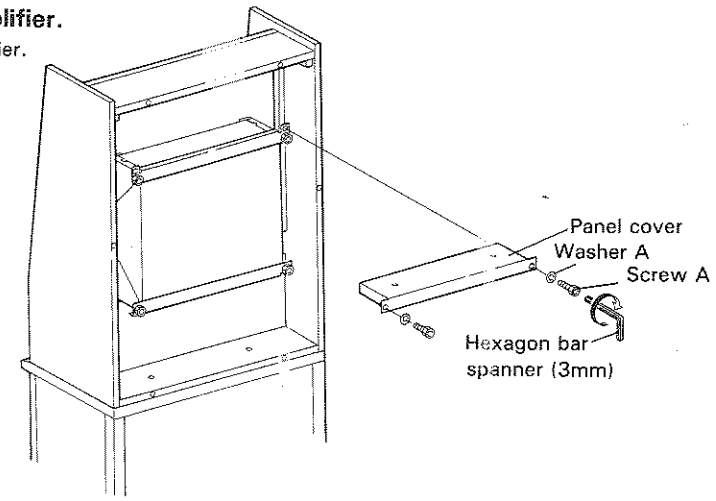
[Rear panel]

- Set auto function mode selector ⑤ to LASER JUKE.
- Other switches have no relation with basic system operation.
  If you wish to use any of them, see the SA–V190 operating instructions.



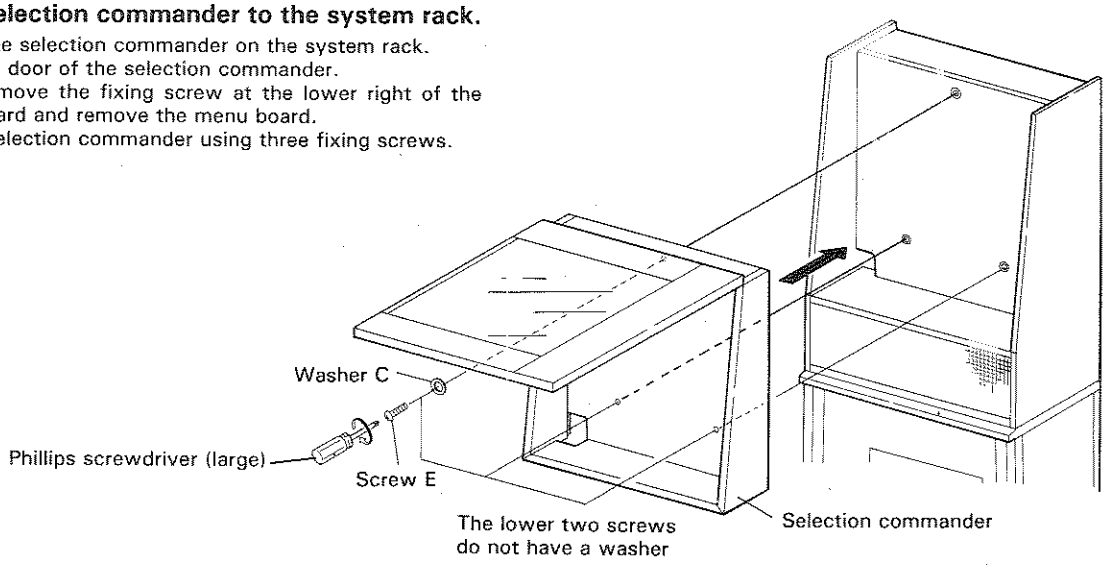
6 Install the panel cover on the mixing amplifier.

- Confirm each switch setting of the mixing amplifier.
- Fix the panel cover.



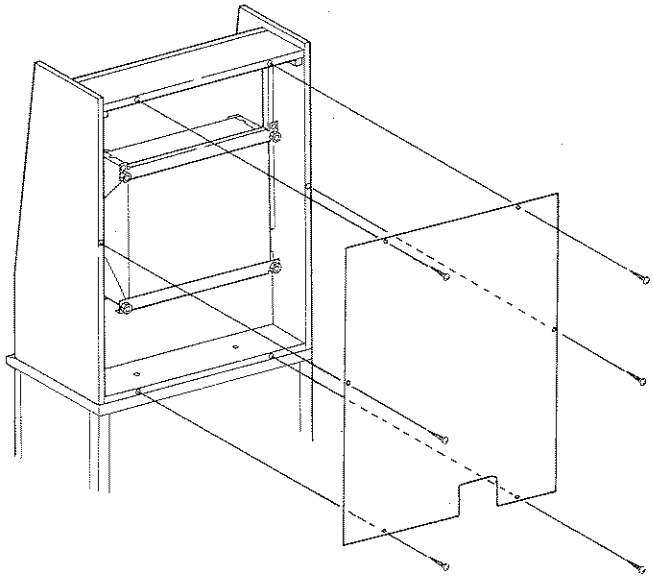
7 Fix the selection commander to the system rack.

- Mount the selection commander on the system rack.
- Open the door of the selection commander.
  Then, remove the fixing screw at the lower right of the menu board and remove the menu board.
- Fix the selection commander using three fixing screws.



8 Fix the back cover.

- The back cover is used for sales promotion



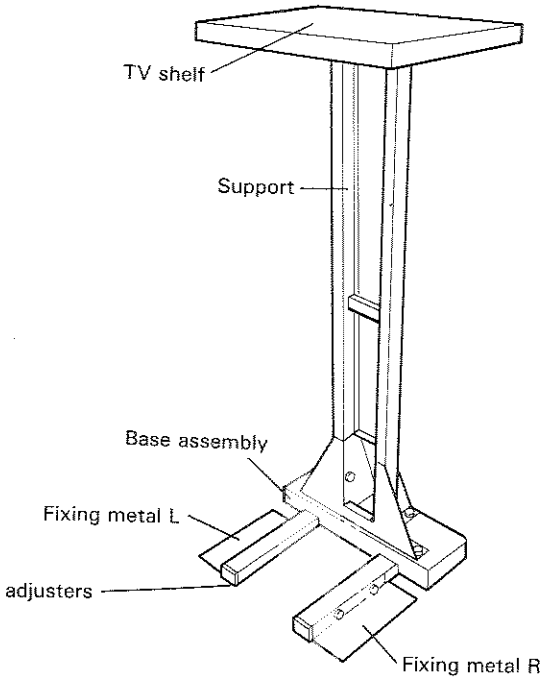
INSTALLATION (2)

CAUTIONS ON INSTALLING THE MONITOR STAND AND RELATED EQUIPMENT

◎ For how to assemble each component, see page 37.

1 Install the monitor stand at the specified place.

- Confirm that the cushion is attached to the back of the TV shelf.
- Place the monitor stand in the specified location.
- Attach the upper and lower parts of the monitor stand to the wall and adjust the lower six adjusters to fasten the monitor stand tightly.

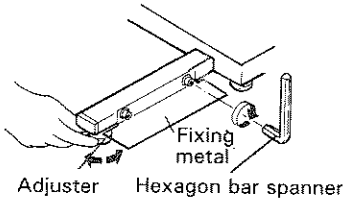


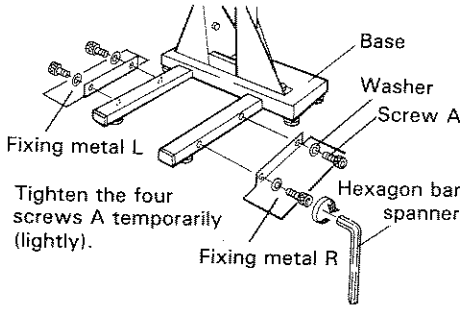
2 Fix the monitor stand to the floor.

- Attach fixing metals L and R closely to the floor and fasten the screws using a hexagon bar spanner.
- Using screws, fix the monitor stand to the holes of fixing metals L and R for fixing to the floor.

Rattle elimination

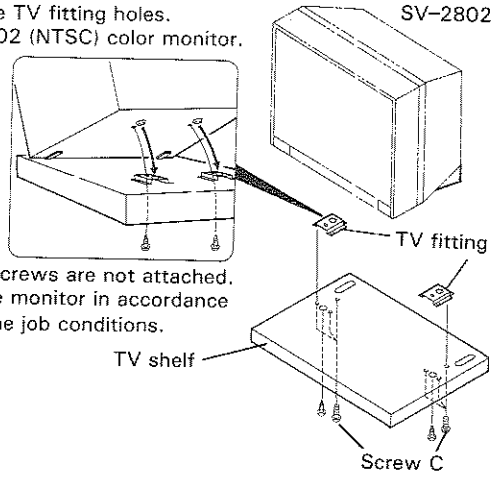
① Make sure the screws other than those to be temporarily tightened are fully tightened.
② Turn the adjusters to make them contact the floor completely.
③ Push down the fixing metals to make them contact the floor completely. Tighten the temporarily-tightened four screws A.





3 Fix the monitor TV.

Insert the TV legs into the TV fitting holes.
Only for PIONEER SV-2802 (NTSC) color monitor.



INSTALLATION (3)

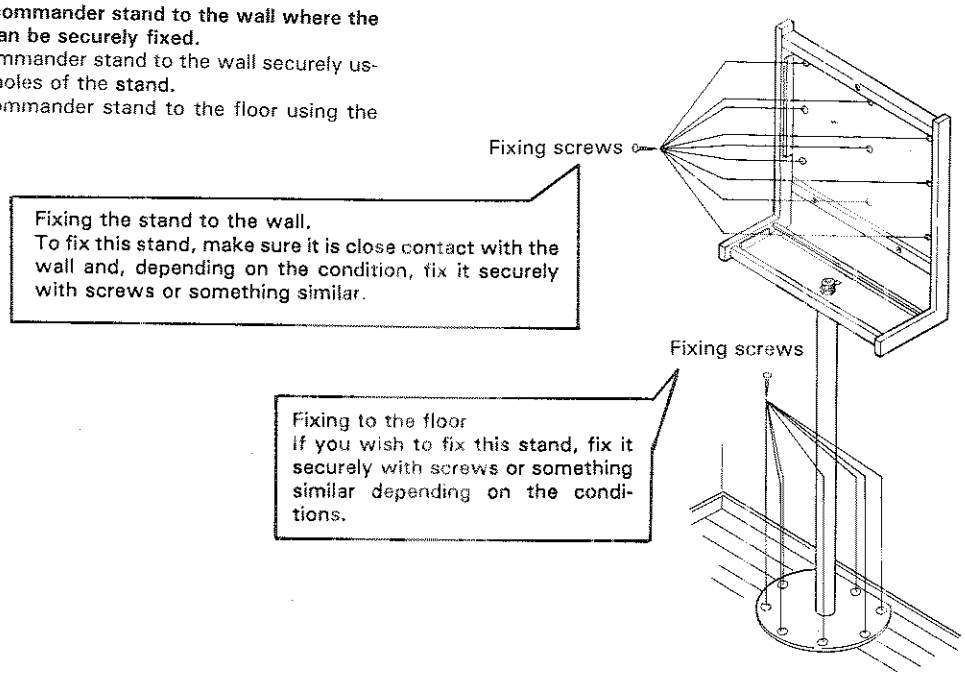
CAUTIONS ON INSTALLING THE SELECTION COMMANDER STAND AND RELATED EQUIPMENT

◎ For how to assemble each component, see page 38.

1 Install the selection commander stand at the specified location.

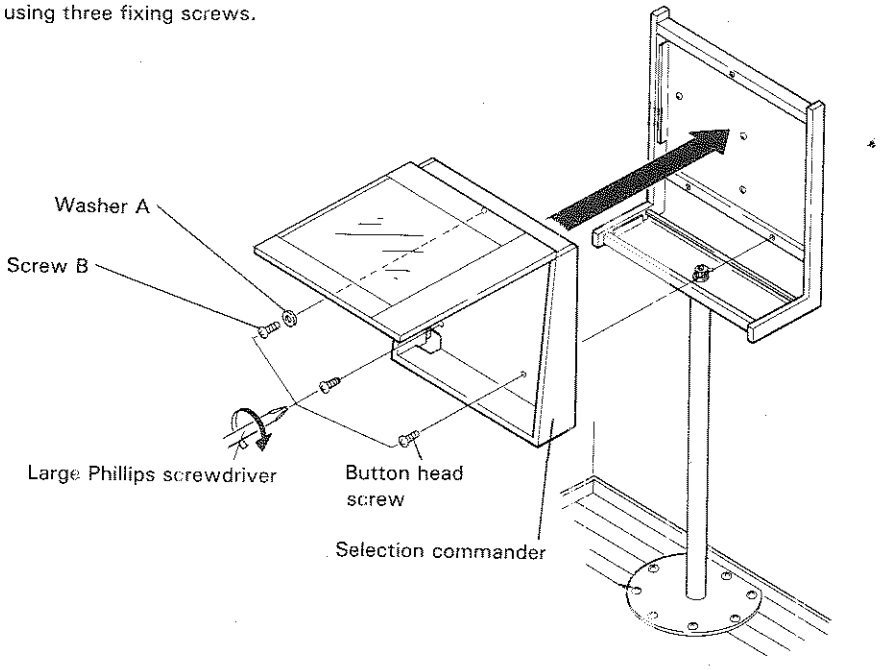
Attach the selection commander stand to the wall where the stand-fixing screws can be securely fixed.

- Fix the selection commander stand to the wall securely using the wall-fixing holes of the stand.
- Fix the selection commander stand to the floor using the eight fixing screws.


Fixing screws
Fixing the stand to the wall.
To fix this stand, make sure it is close contact with the wall and, depending on the condition, fix it securely with screws or something similar.
Fixing screws
Fixing to the floor
If you wish to fix this stand, fix it securely with screws or something similar depending on the conditions.

2 Fix the selection commander to the selection commander stand.

- Mount the selection commander on the selection commander stand.
- Unlock the door.
- Fix the selection commander using three fixing screws.

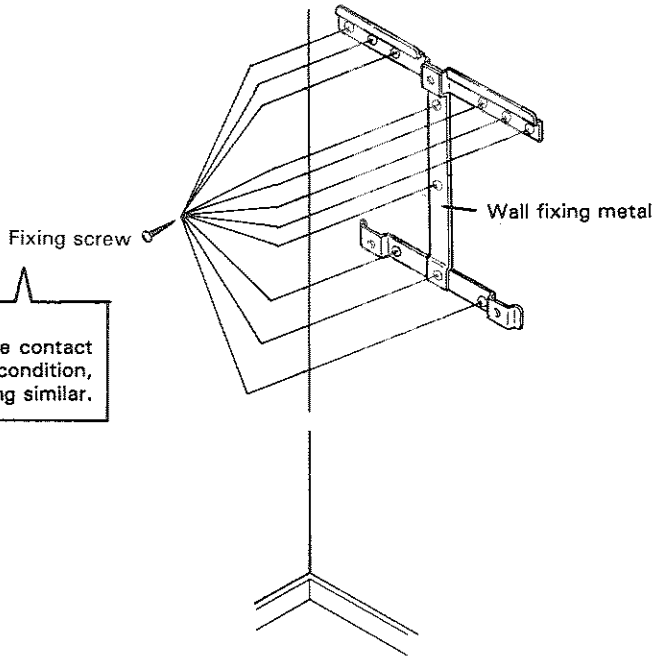


INSTALLATION (4)

CAUTIONS ON INSTALLING THE SELECTION COMMANDER WALL MOUNT KIT AND RELATED EQUIPMENT

1 Fix the selection commander wall mount kit to the wall.

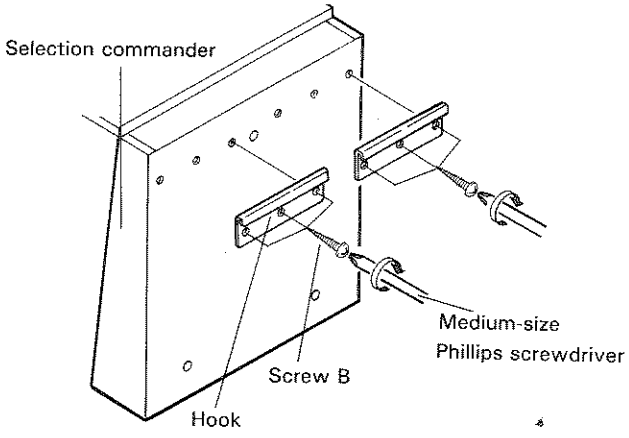
- Fix the mounting bracket to the specified place on the wall using ten fixing screws.
- Examine the wall structure carefully before tightening the fixing screws securely.
- Do not fix this kit to a gypsum-board wall.



Fix the wall fixing metal to the wall
To fix this kit, make sure it is in close contact with the wall and, depending on the condition, fix it securely with screws or something similar.

2 Fix the hook to the selection commander.

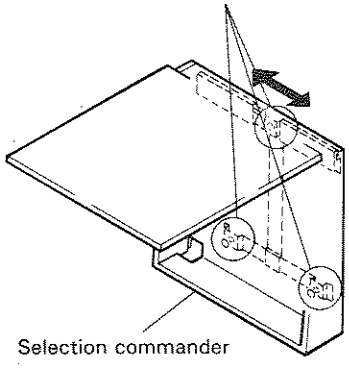
- As shown in the right-hand figure, fix the hook to the back of the selection commander using fixing screws.

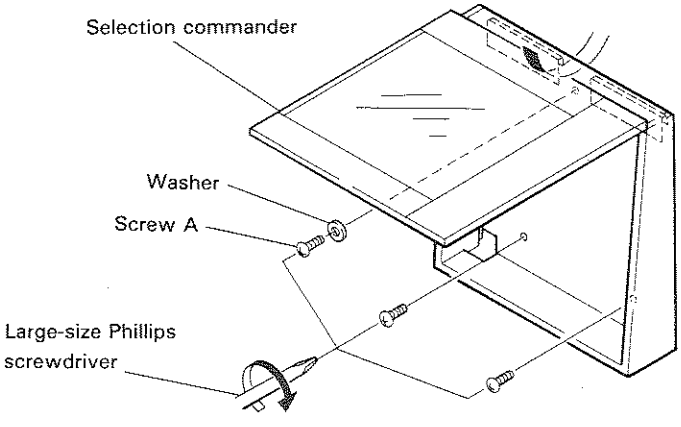


3 Hook the selection commander to the wall-fixing metals.

- Hook the selection commander to the wall-fixing metals.
- Fix the selection commander using three fixing screws.

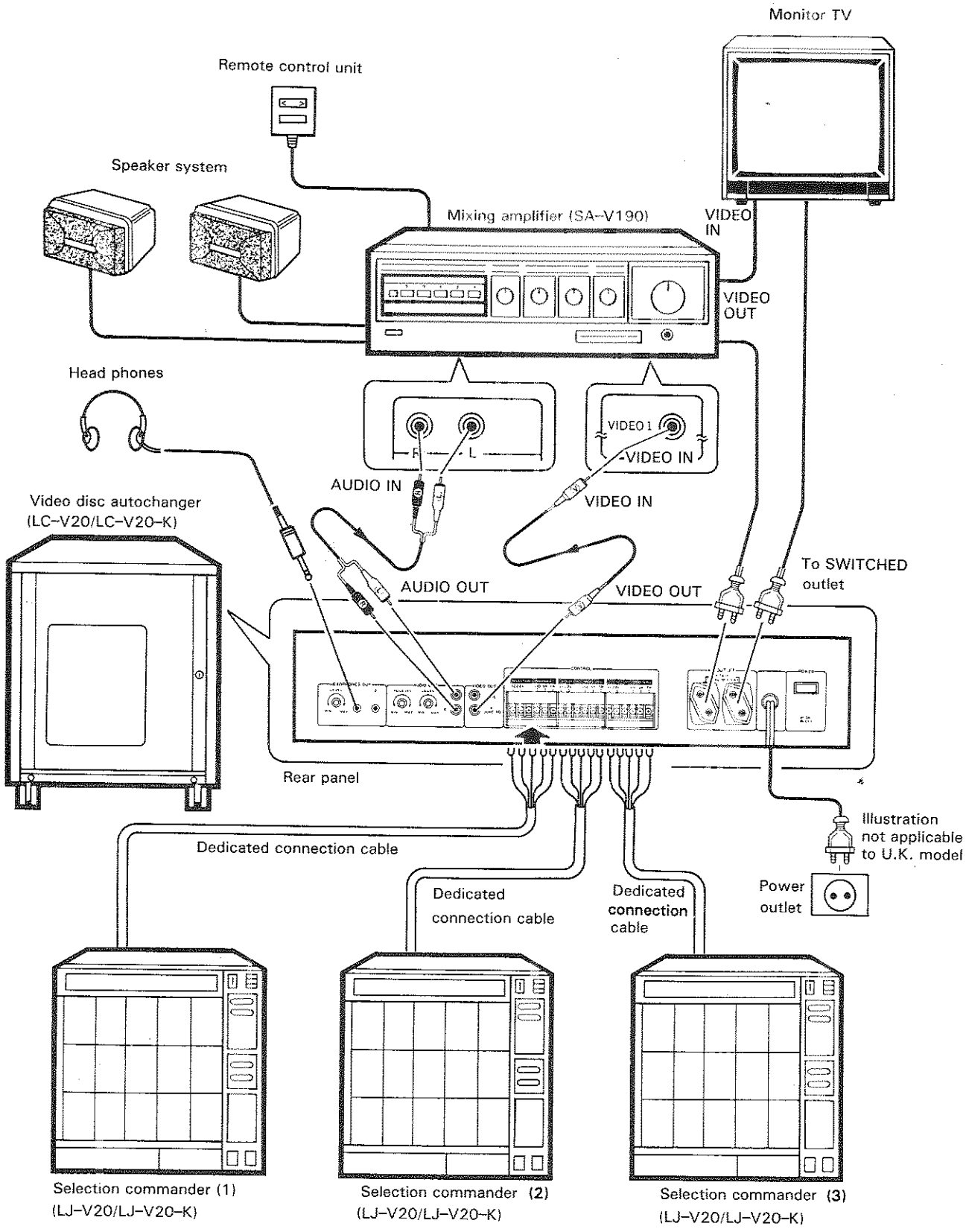
Set the three selection commander fixing holes in line with the screw holes.





INSTALLATION (5) SYSTEM CONNECTION

Basic system connection



INSTALLATION (6) CONNECTING THE COMMUNICATION CABLES OF THE SELECTION COMMANDER AND VIDEO DISC AUTOCHANGER

1 Connecting the video disc autochanger

- When two selection commanders are used, connect the selection commander cables to the terminals marked COMMANDER 1 and 2.
- Connect AC22V, GND SR and TR in accordance.

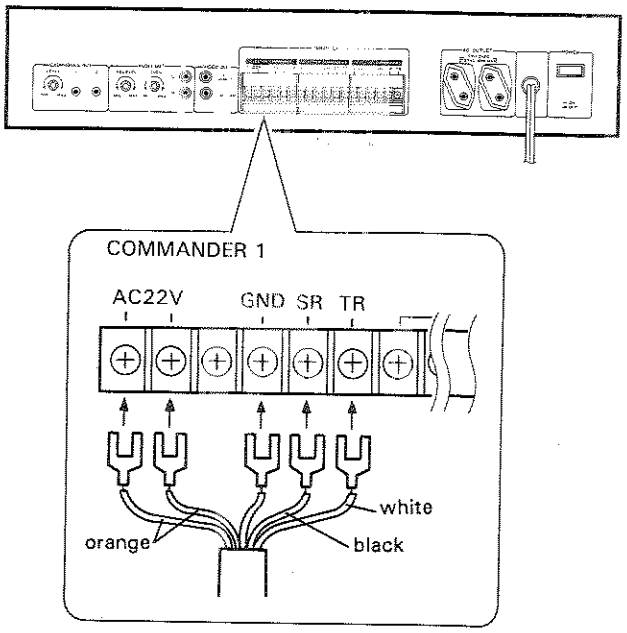
When the video disc autochanger is installed at a distance from the selection commander, use a cable satisfying the following specifications:

Item	Unit	Characteristics	
		Power transmission line	Signal transmission line
Maximum conductor resistance (20°C)	Ω/km	14.5	59
Minimum insulation resistance (20°C)	MΩ−km	5	
Withstand voltage (AC)	V/min	2000	

Note:
To protect the data from external noise, be sure to use a shielded cable as a signal transmission line and connect it to the GND terminal of the selection commander and video disc autochanger.

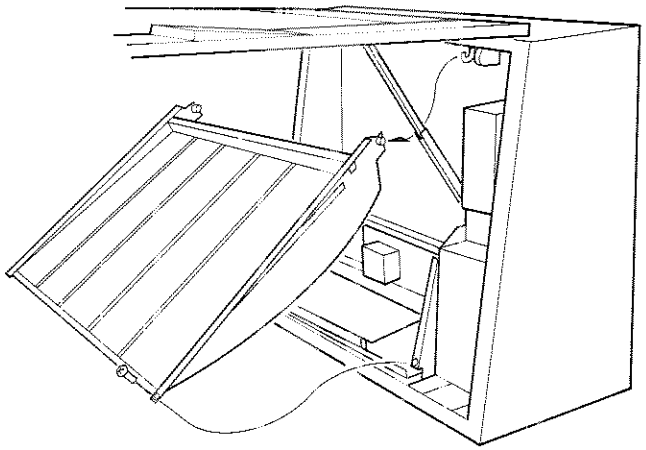
(Recommended cable design)

Rear panel of the video disc autochanger



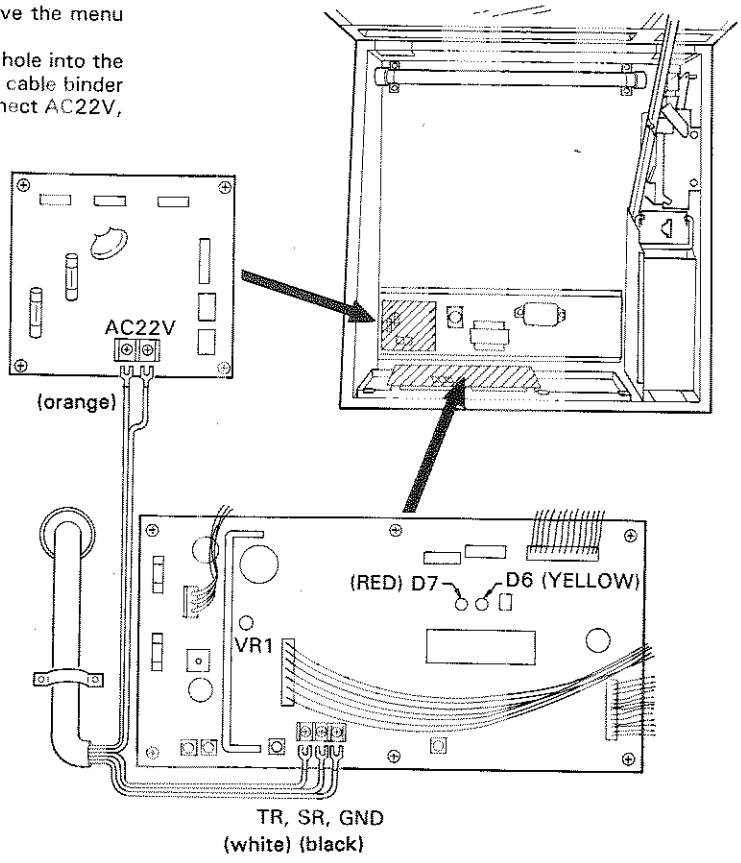
2 Detaching the menu board

- Open the selection commander door.
- Remove the fixing screws at the lower right of the menu board.
- Lift the menu board, move it forward and remove the hook.



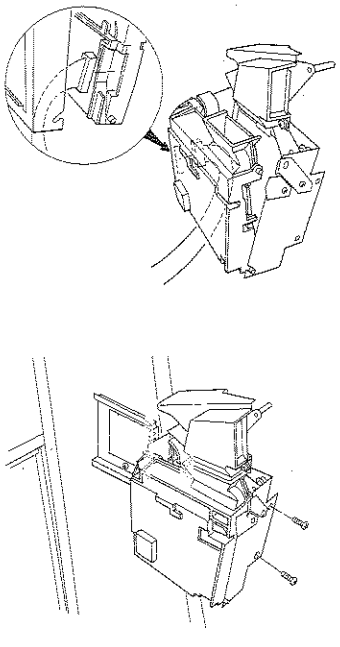
3 Connecting the selection commander

- Unlock the door.
- Open the selection commander door to remove the menu board.
- Pull the connection cable through the bottom hole into the selection commander. Press the cable using a cable binder in accordance with the right-hand figure. Connect AC22V, GND, SR and TR correctly.

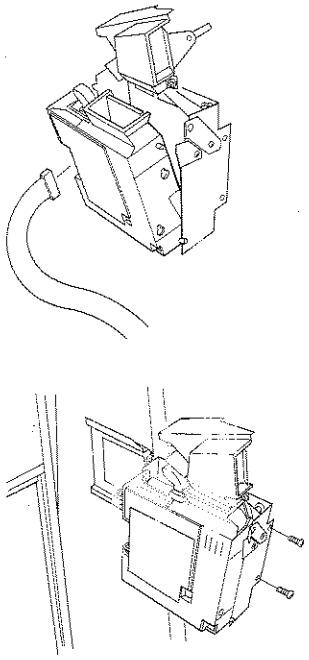


4 Attachment of Coin Acceptor

MARS MS 111 electronic coin acceptor



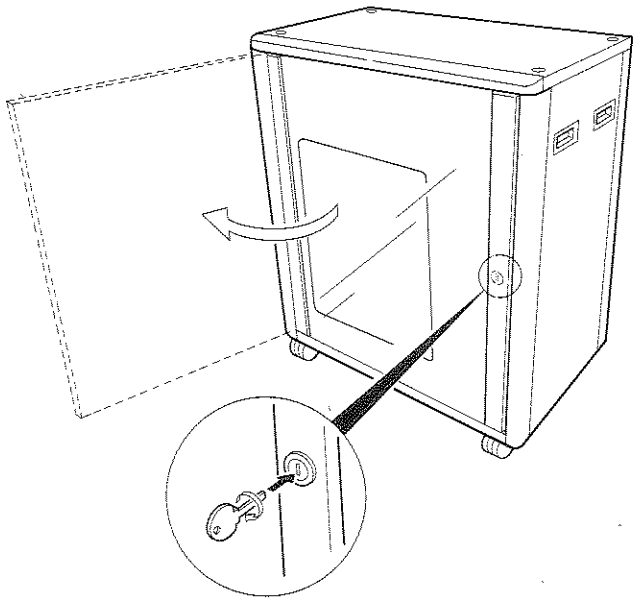
COIN CONTROL LTD. SENTINEL 30/35 electronic coin acceptor.



DISC INSTALLATION

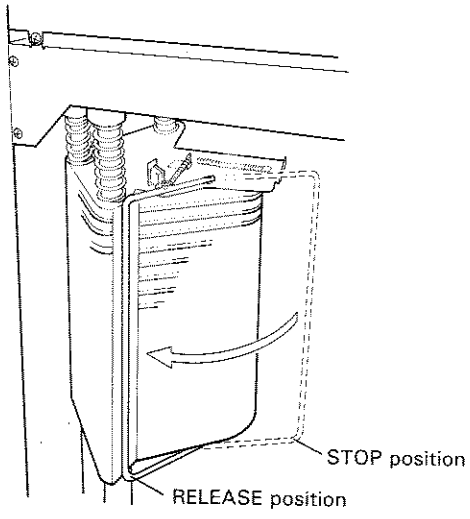
1 Open the video disc autochanger door.

- Insert the key into the keyhole and turn the key clockwise to unlock the door.



2 Confirm that the disc stopper is released.

- Confirm that the disc stopper is released as shown in Figure.

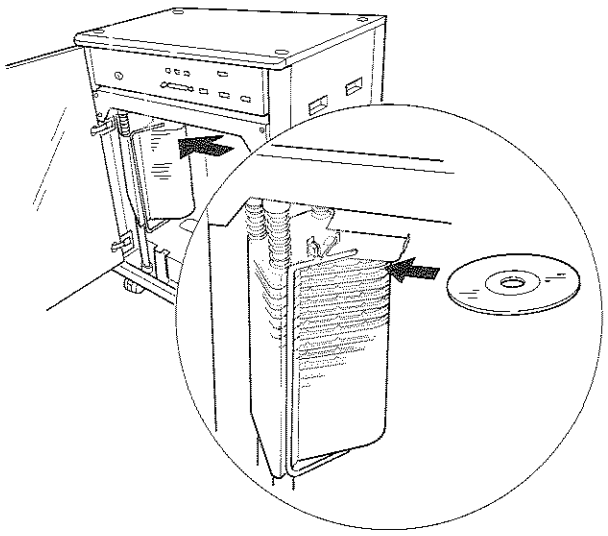


3 Disc installation

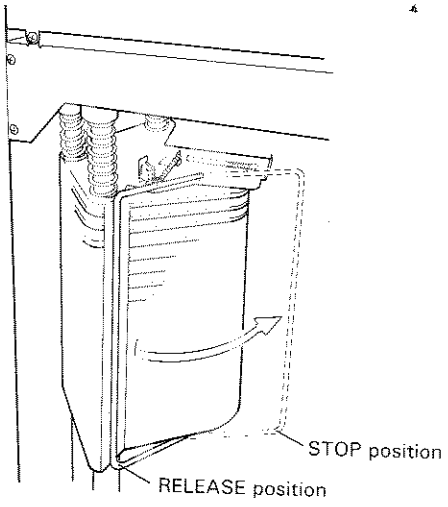
- Install a disc in accordance with the menu sheet.
- Place the disc so that Side A faces upwards.
- Take care not to damage the disc when installing it.

Tray address and music No.

- Install laser juke discs into tray No. 10 to 24 in black on a white background.
- Install advertising discs into tray No. 1 to 5 in white on a black background. Install discs starting from tray No. 1.



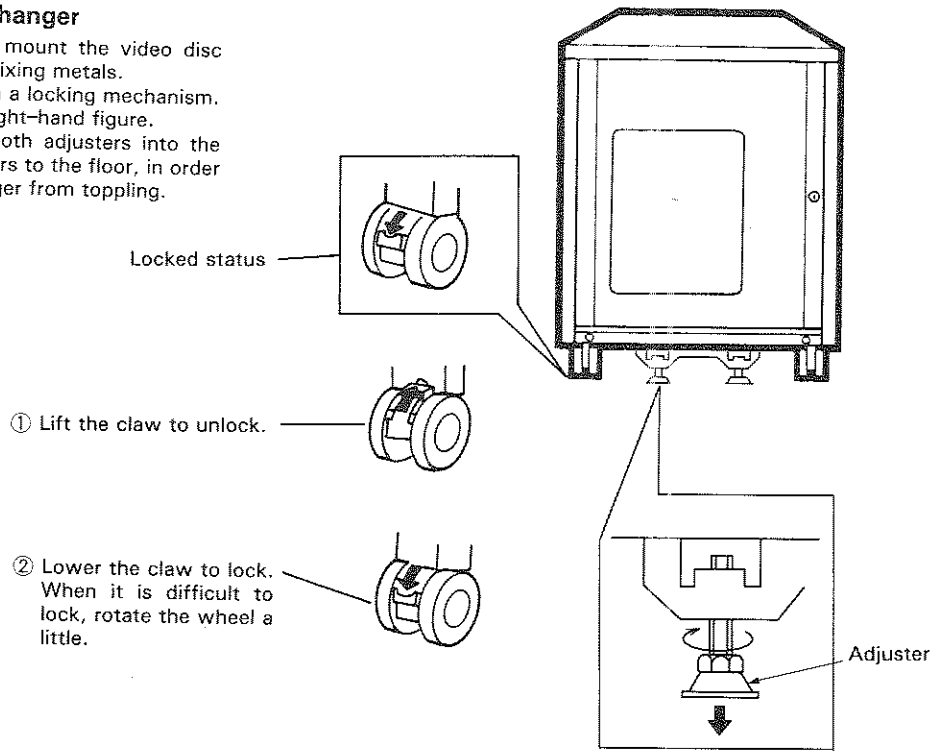
Setting the disc stopper to the STOP position allows this system to be moved on the floor with discs inside. After moving, set the disc stopper to the RELEASE position.



CASTER LOCK AND SAFETY MEASURES AGAINST TOPPLING

1 Installing the video disc autochanger

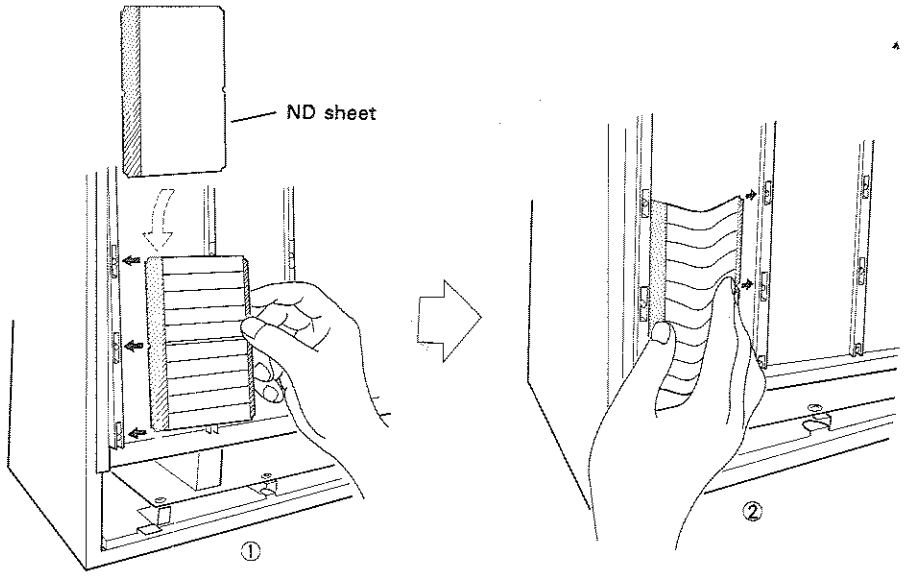
- After all the wiring is completed, mount the video disc autochanger on the monitor stand fixing metals.
- The front casters are equipped with a locking mechanism. Lock the casters as shown in the right-hand figure.
- After locking the casters, rotate both adjusters into the arrow direction to touch the adjusters to the floor, in order to prevent the video disc autochanger from toppling.


Locked status
① Lift the claw to unlock.
② Lower the claw to lock. When it is difficult to lock, rotate the wheel a little.
Adjuster

ATTACHING THE MENU SHEET

① Insert the left position of the menu sheet to meet its notchs to the protruding portions of the sheet guide.
② Bend the sheet and insert the right portion into the sheet guide.

- In the case of a new disc, insert a ND sheet under the menu sheet so that the menu numbers are displayed in red.



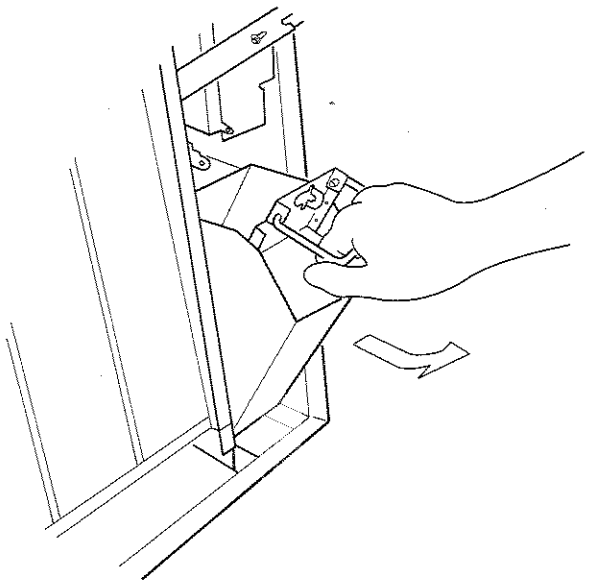
HANDLING THE COIN BOX

Taking out the coin box

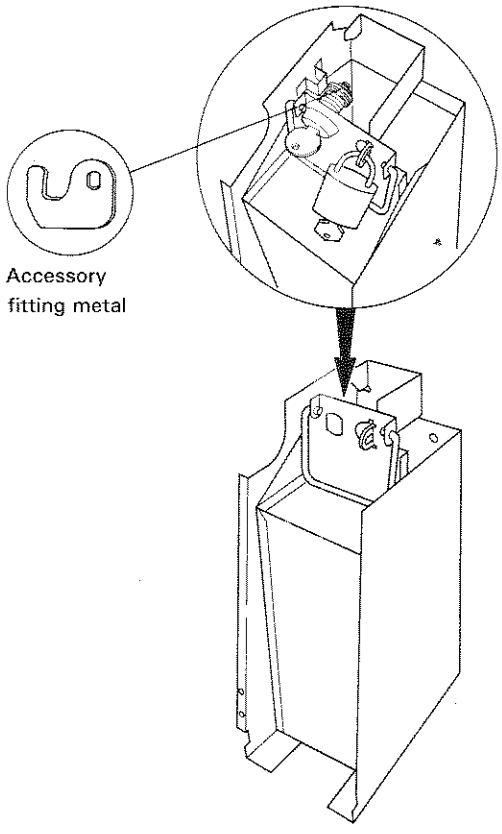
- Open the door and take out the coin box by pulling the handle.
- Where the coin box is equipped with an anti-burglar key, remove the key before taking the coin box out.
- After collecting the coins, fix the coin box as it was before. Where necessary, install an anti-burglar key.

Attaching the coin box

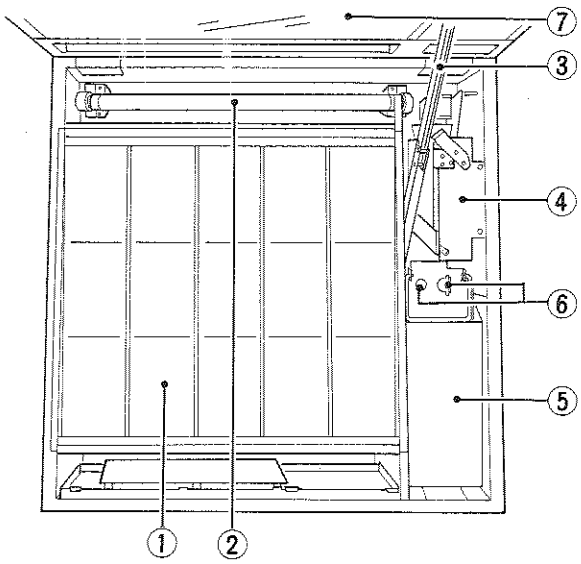
- Incline the lever towards you and push it.
- Inclining the lever in the reverse direction makes the attachment of the coin box impossible.

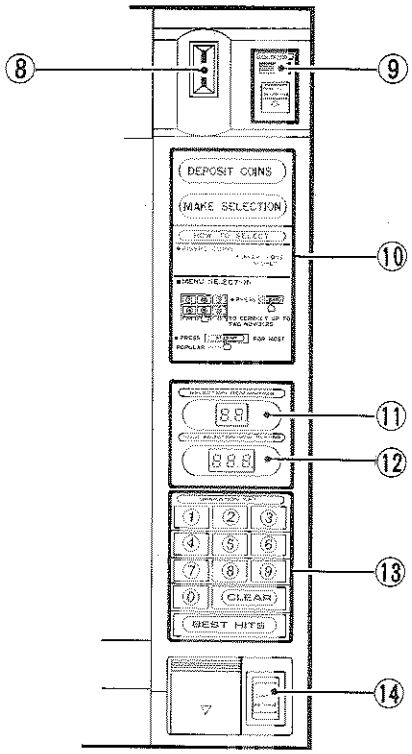


The coin box can be equipped with either a cylinder lock or padlock. One fitting metal is supplied as an accessory.



NAMES AND FUNCTIONS OF EACH PART





① Menu board

② Fluorescent lamp for menu illumination

③ Arm

④ Coin acceptor

⑤ Coin box

⑥ Key-fixing holes for the coin box

⑦ Door

(Operation unit)

⑧ Coin insertion hole

Caution
Inserted coins will not be returned even though the coin-return lever is operated. Insert only the amount of coins needed.

⑨ Coin-return lever

Operate the coin-return lever when a deformed or steel imitation coin is caught. This will cause the coin to return via the coin-return hole.

⑩ Operation guide display

- DEPOSIT COINS.
  When this indication is lit up, you can insert coins.
  When it is off, inserted coins are returned via the coin-return hole.
- MAKE SELECTION.
  This indication is lit up when the system is ready for music selection.

⑪ SELECTION REMAININGS.

This indication shows the number of pieces of music you can select using the inserted coins.

⑫ YOUR SELECTION/NOW PLAYING

This indication shows the number of the piece of music entering by using numeric keys.
When no key input is being done, this indication shows the number of the piece of music currently being played.

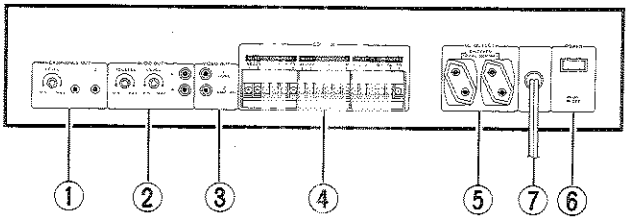
⑬ OPERATION KEY

- Numeric keys
  Use these keys to enter the number of the piece of music to be played.
- CLEAR key
  The selection can be canceled by pressing the CLEAR key before entering the last digit.
- BEST HIT key
  The most-popular piece of music on the location is automatically selected.

⑭ Coin-return hole

When a coin is inserted while the indication "DEPOSIT COINS" is off or unacceptable kinds of coins are inserted, they are returned via this hole.

(REAR PANEL)



① HEADPHONES OUT (mini jack) and LEVEL control

② AUDIO OUT (pin jacks), juke level control, and advertising play level control

These jacks connect to the input jacks of a stereo amplifier using the audio cord supplied with this system. Use the LEVEL and AD LEVEL controls to adjust the audio level for playing juke and advertising discs.

③ VIDEO OUT (pin jack)

- VIDEO OUT 1 (juke) ——— Juke play only.
- VIDEO OUT 2 (juke/advertising) ——— Juke play and advertising play.

④ CONTROL (SELECTION COMMANDER 1, 2, 3)

Connects to a maximum of three selection commanders.

⑤ AC OUTLETS SWITCHED TOTAL 500W MAX

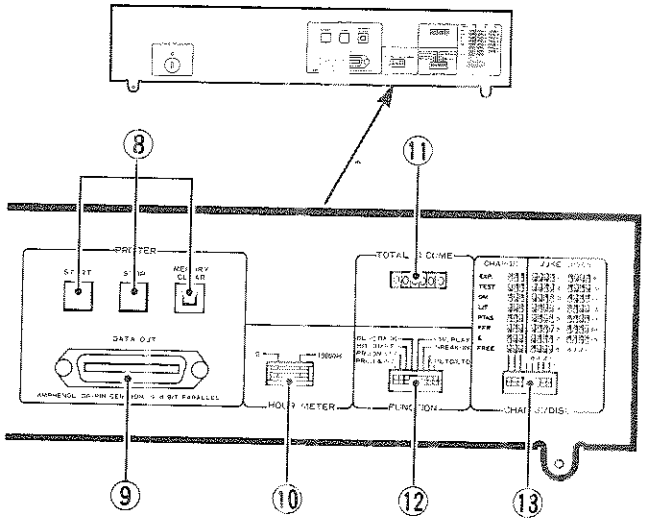
Power supplied through this outlet is turned on and off by this equipment's POWER switch. Total electrical power consumption of connected equipment should not exceed 500W.

NOTE :
Do not connect appliances with high power consumption such as heaters, irons, or television sets to the AC OUTLETS, in order to avoid overheating or fire risk.
This can cause this equipment to malfunction.

⑥ Power switch (ON, OFF)

⑦ Power cord

(FRONT PANEL)



⑧ Printer output control button

- START ——— Outputs stored data via a printer.
- STOP ——— Stops printout.
- MEMORY CLEAR ——— Deletes the contents of the memory unit for the number of selections and income data.

⑨ DATA OUT terminal

Use the AMPHENOL 36-pin, CENTRONIX-based, 8-bit parallel printer to print out the number of music selections by discs or that by music pieces and income data.

⑩ HOUR METER (0 to 10,000 hours)

Displays the duration of electricity applied to the video disc autochanger.

⑪ Income counter

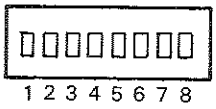
Displays the amount of coins deposited.
(This income counter cannot be reset.)

⑫ FUNCTION switches

⑬ CHARGE/DISC switches

DIP SWITCH SETTING

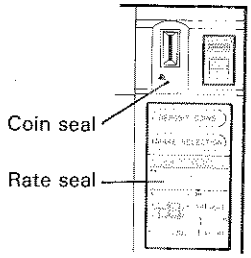
1. DIP switches for CHARGE/DISC



No.	Panel display	Screen display	UP / DOWN	Description
8	1	— DISCS	ON / OFF	1 9 — Use this switch to set the number of juke discs. The remaining trays will be used for advertising discs. Insert advertising discs starting from the bottom.
7	2		ON / OFF	2 10
6	4		ON / OFF	3 11
5	8		ON / OFF	4 12
				5 13
				6 14
				7 15
				8
4	———	———		———
3	CHARGE	CHARGE		EXP. — Expansion TEST — Test DM — Germany LIT — Italy PTAS — Spain FFR — France £ — United Kingdom FREE — Free (1 2 3) — The applicable coins and the amount of money required are set.
2				
1				

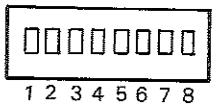
COIN HANDLING

LJ-V20 (-K) is designed to be fitted with the electronic coin acceptor. (top entry, bottom reject type)
Attach the coin acceptor which is designed for the coinage in that country.
LJ-V20 (-K) has following five pre-set patterns, corresponding to five major countries.



		£	FFR	PTAS	LIT	DM
Country		UK	France	Spain	Italy	West German
Usable coins	Coin 4	£1	10F	100P	500L	5DM
	Coin 3	50p	5F	50P	——	2DM
	Coin 2	20p	2F	25P	——	1DM
	Coin 1	10p	1F	——	——	50P
Price of play		30P → 1 play 50p → 2 plays £1 → 4 plays	5F → 1 play 10F → 3 plays	75P → 1 play 100P → 2 plays	1000L → 1 play	1DM → 1 play 3DM → 4 plays 5DM → 7 plays

2. DIP switches for FUNCTION



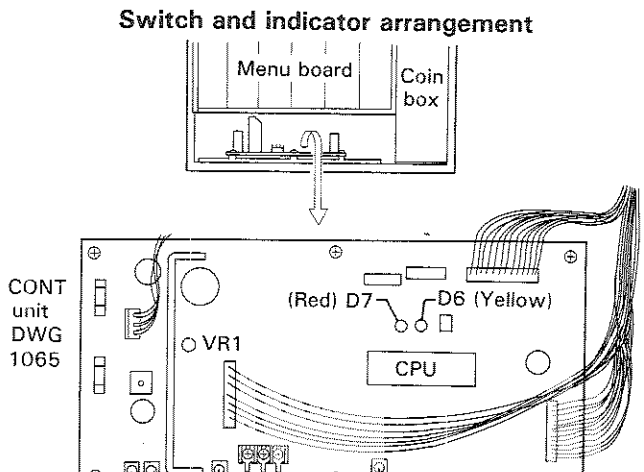
No.	Panel display	Screen display	UP / DOWN	Description
8	UNLTD/LTD	SELECTION	UNLIMITED	The number of pieces of music is not limited to 10.
			LIMITED	When the sum of the number of credit pieces of music received from each commander (i.e. the number of pieces of music that can be selected: the number indicated on the commander) and the number of reserved pieces of music entered in the system exceeds 10, the deposit of an additional coin is inhibited for all commanders.
7	——	——		——
6	BREAK-IN	BRK	OFF	Normal mode
			ON	A special mode for aging that operates while reducing the stand-by time for promotion play and playing time to 1/10 (In other cases, normal operation is carried out.)
5	ADV-PLAY	ADV	ON	During the time from the completion of the playing of all selected pieces of music to the beginning of music selection, AD discs are played continuously and automatically. The signal used at this time appears only at video output terminal 2 (JUKE/AD).
			OFF	No AD disc playing is carried out.
4	BLUE BACK	BLU	ON	While no video signal is transmitted from LDP, a BLUE BACK signal is transmitted to video output terminal 2 (JUKE/AD).
			OFF	No BLUE BACK signal is transmitted.
3	HIT CHART	CHR	ON	While no video signal is transmitted from LDP, best hit music information is transmitted to video output terminal 2 (JUKE/AD).
			OFF	No best hit music information is transmitted. (However, although this switch is turned off, the message screen for promotion play and the message for the time the door is open are output).
2	PRO.ON/OFF	PRO	ON	When another piece of music is not selected for 10 minutes after playing all selected pieces of music, promotion play is carried out to urge music selection. This operation constitutes the playing of a randomly-selected juke piece of music for only one minute. If an AD piece of music is being played, the system moves on to promotion play after the piece play over.
			OFF	No promotion play is carried out.
1	PRO.1&2/2	PRO	ON	A promotion play signal is output to video output terminal 1 (JUKE) and video output terminal 2 (JUKE/AD).
			ON'	A promotion play signal is output to video output terminal 2 (JUKE/AD) only.

OPERATOR MODE

Function of each switch

1. S1 ····· Registers identification numbers —— function 1
   Registers expansion rates —— function 3
2. S2 ····· Registers inhibited music numbers
3. S3 ····· Stops a piece of music currently being played
4. S4 ····· Deletes data concerning reserved pieces of music and credit data

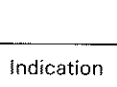
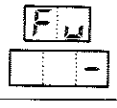
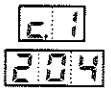
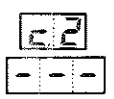
Switch and indicator arrangement



DESCRIPTION OF EACH FUNCTION

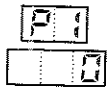
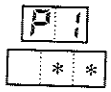
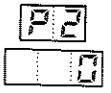
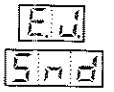
1. Registration of identification numbers

The yellow LED (D6) indicates the registration status.
Blinks ····· during communication
On ····· during input
Off ····· during normal operation

1	Press S1.	Indication 	Display on the **operation section** indicates Fu. The system enters the function mode.
2	Press numeric key "1" and the BEST HIT key.		The system enters the identification number registration mode.
3	Divide the identification number into 4 groups and enter the numbers starting from the top using the numeric keys.		(Example) 204 294 21 151 ····· Model number C1 C2 C3 C4 ····· Column On making a mistake, repeat the input procedure after pressing the CLEAR key.
4	Press the BEST HIT key.		
5	Repeat steps ③ and ④ above from C2 to C4. After C4 is entered, the display changes to what is indicated on the right.	 Blinks	Continuously press the BEST HIT key to confirm C1 to C4. When an error is found, clear the corresponding column and repeat the input procedure. After confirmation or reinput, press the BEST HIT key to put the system into the E.J. (end of job) mode.
6	Press numeric key "0" (escape).	Blinks	Press the BEST HIT key for the system to exit from the model number registration mode. (At this time, no model number is registered.) After exiting from this mode, the system returns to its original status.
7	Press numeric key "0" again (transmission).	Blinks	Continuously press numeric key "0" to enter the following: "noP" ····· conformation and reinput of each column "ESC" ····· escape "Snd" ····· transmission
8	Press the BEST HIT key.		Beeping sound occurs and, after registration, the system returns to its original status.

2. Registration of expansion rates

When the rate-setting dip switch on the autochanger is set to the EXP (expansion) position, expansion rates can be registered using the commander.
The yellow LED (D6) indicates the registration status.
Blinks ..... during communication
On ..... during input
Off ..... during normal operation

1	Press S1.	Indication	Display on the operation section indicates Fu. The system enters the function mode.
2	Press numeric key "3" and the BEST HIT key.		The system enters the expansion rate registration mode.
3	Press numeric keys to enter any number "**".		P.1 to P.0 ..... credit table C.1 to C.4 ..... value table Numbers can be in the following range: P.1 to P.0 ..... 0 to 9 C.1 to C.4 ..... 0 to 10
4	Press the BEST HIT key.		
5	Repeat steps ③ and ④ for P.2 to P.0 and C.1 to C.4. After entering C.4, the display changes to what is indicated on the right.		The steps to be taken during the E.J. (end of job) mode are the same as steps ⑤ to ⑦ specified in clause "Registration of identification numbers".
6	Press numeric key "0" (escape mode).		
7	Press numeric key "0" (transmission mode).		
8	Press the BEST HIT key.		A beeping sound occurs and, after registration, the system returns to its original status. (See Note 1.)

Note 1:
A beeping sound occurs for each commander. Therefore, when three commanders are connected, a beeping sound occurs three times.

• The following table is a setting example. Infact these valiue are the same as those in the ROM.

	Value Table				Credit Table									
	C−1	C−2	C−3	C−4	P1	P2	P3	P4	P5	P6	P7	P8	P9	P0
U.K.	1	2	5	10	0	0	1	0	2	0	0	0	0	4
France	1	2	5	10	0	0	0	0	1	0	0	0	0	3
Spain	0	1	2	4	0	0	1	2	0	3	0	0	0	0
Italy	0	0	0	1	0	1	0	0	0	0	0	0	0	0
W.Germany	1	2	4	10	0	1	0	0	0	4	0	0	0	7

3. Registration of inhibited music numbers

The red LED (D7) indicates the registration status.
Blinks ..... during communication
On ..... during input
Off ..... during normal operation

S2

The system enters the inhibited-music registration mode.
* The 2-digit LED indicates

3-digit LED

⇨ The smallest number of all inhibited music numbers currently registered is displayed.
(This piece of music is hereinafter referred to as a noted piece of music.)

BEST HIT
(renewal)

⇨ The noted piece of music is renewed and the subsequent inhibited piece of music becomes a noted one.
(After the bottom, it returns to the top.)

CLEAR
(deletion)
Beeping sound

⇨ The noted piece of music is exempted from inhibition.
The subsequent piece of music becomes a noted one.

m n r
(new input)

Blinks

Blinks

Blinks
⇨ The newly-inhibited piece of music is written over the noted piece of music.
(At this time, when one digit is entered, the display of the preceding noted piece of music disappears but is not deleted.)

BEST HIT
Beeping sound

⇨ The display of this number stops blinking and is registered as an inhibited piece of music, which becomes a noted piece of music.

CLEAR

⇨ The new inhibited piece of music is canceled and the preceding noted piece of music is displayed.

0

Each time press numeric key "0" for the system, the modes are shifted as indicated on the right.

BEST HIT → The system exits from the inhibited-music registration modes (beeping sound twice).

BEST HIT → All inhibited pieces of music are exempted from inhibition (beeping sound).

BEST HIT → Transmits all inhibited pieces of music to videodisc autochanger. After transmission, the system exits from the inhibited-music registration mode. After communication, a beeping sound occurs. (A beeping sound occurs for each commander. Therefore, when three commanders are connected, a beeping sound occurs three times.)

(Blinks)

The noted piece of music is displayed without executing the command.

CLEAR

4. Stoppage of music play

Operation

Press S3. ····· When the autochanger receives the signal, a beeping sound occurs.

5. Deletion of data concerning reserved pieces of music and credit data

Operation

Press S4. ····· When the autochanger receives the signal, a beeping sound occurs.

a) Data to be deleted
- Credit data for the commander executing the operation
- Data concerning reserved pieces of music for the autochanger

b) Data not to be deleted
- Credit data for another commanders connected to the autochanger.

ADVERTISING PLAY

① Advertising play switch

Leaving the ADV-PLAY switch to ON-position will select automatic advertising play of the discs in the advertising disc area when there is no selection of musics.

② Stopping advertising play

Advertising play will be stopped when selection is mode during advertising play and the selected tune will be played.

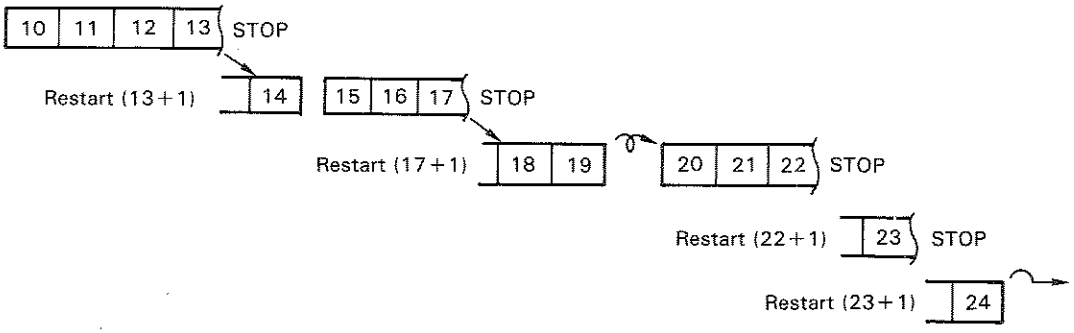
③ Playback order for advertising play

In the beginning, playback starts from the musics of advertising disc 1. If playback is stopped, playback resumes from the piece next to the last piece of the previous advertising play.

④ Disc presence learning function

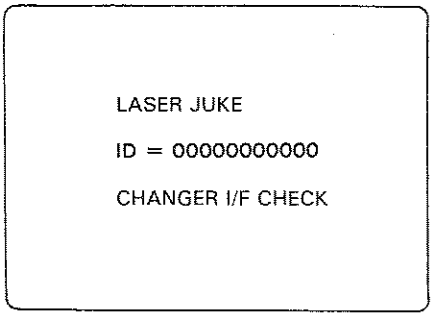
When no disc is detected in any advertising disc tray, this disc tray is not accessed any more. This information on the disc presence is retained until the front door is opened.

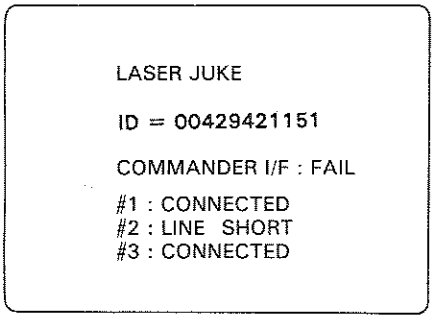
Example:



FUNCTION FOR INDICATING THE SETTING STATUS

1. Initial-state screen





Display timing ····· when the power is turned on.

When the power is turned on, self diagnosis is carried out and its results are displayed one by one. The items to be diagnosed are as follows:

1. Checking the contents of the memory backed up
2. Checking the communication system connected with the autochanger
3. Checking the communication system connected with the commander (including the connected cables)

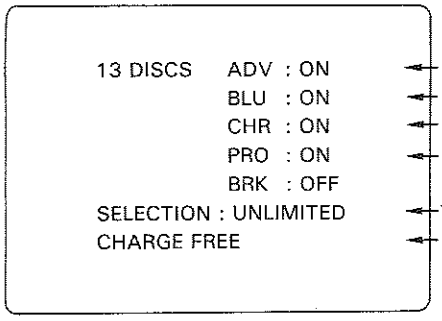
When an abnormality is found in the contents of the memory during the check specified in item 1 above, "MEMORY CLEAR" is displayed in the center of the screen to initialize the contents of the memory. If no abnormality is found, the data indicated at the upper left of this page is displayed.
(When no ID code is registered, a series of zeros is displayed as shown in the upper left-hand example.)

When no abnormality is found during the check specified in item 2 above, "CHANGER I/F: GOOD" is displayed, followed by "COMMANDER I/F CHECK". When "CHANGER I/F: FAIL" is displayed, the system cannot move on to the next step unless the cause of this failure is removed.
"CHANGER DOOR OPEN" is displayed while the glass door is open. At this time, the system moves on to checking the next "COMMANDER".

The screen as shown in the lower left corner of this page appears during the check specified in item 3 above. An abnormality of the second commander is detected and displayed.
(At this time, the first and third commanders operate normally. Therefore, only the second commander is unable to operate while the other commanders can operate.)

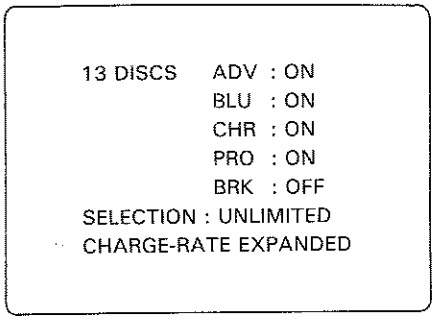
This initial-state screen remains in the BLUE BACK state regardless of the DIP switch setting.

2. Setup screen



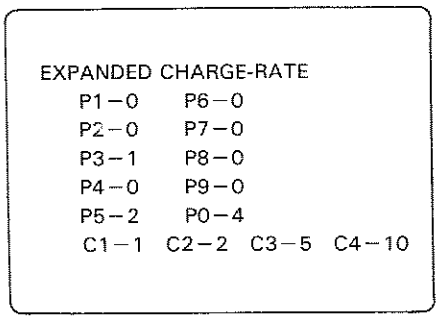
ADV play : ON/OFF
Blue back : ON/OFF
Hit chart display : ON/OFF
Promotion play : ON/ON'/OFF ✻ When "ON'" is displayed, promotion play output appears only at output terminal 2.
The number of pieces of music : UNLIMITED/LIMITED
Charge setting : FREE
FIXED : TEST
FIXED : DM
FIXED : LIT
FIXED : PTAS
FIXED : FFR
FIXED : POUND
RATE EXPANDED

Display timing ····· This is displayed when the glass door is open or is opened after displaying the initial-state screen.



← blinks

- When the setting is changed using dip switches, the corresponding item blinks.



When the charge setting is displayed as "EXPANDED" as shown in the middle left figure, press the START button to display the expanded rate setting chart for about 2 seconds as shown in the lower left figure.

- Also, when the glass door is closed, the data shown in the lower left figure is displayed (when the rate setting is EXPANDED).
- When a different value for expanded rate setting is entered via a commander, the screen as shown in the left-hand figure indicates the completion of reception.

LIST OF INHIBIT-TUNES

#104	#109	#114	#119
#124	#129	#134	#139
#144	#149	#154	#159
#164	#169	#174	#179
#184	#189	#194	#199
#204	#209	#214	#219
#224	#229	#230	#231

This range covers 28 inhibited pieces of music.

Display timing .....
1. After the initial-state screen
2. When the glass door is closed
3. After entering the number of inhibited pieces of music

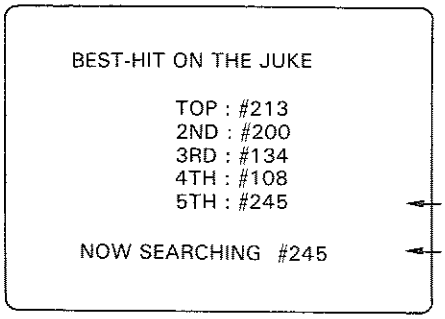
When the number of inhibited pieces of music exceeds 28, the screen scrolls up one by one line.

#164	#169	#174	#179
#184	#189	#194	#199
#204	#209	#214	#219
#224	#229	#230	#231
#232	#233	#234	#235
#236	#237	#238	#239
#240	#241	#242	#243
#244	#245	#246	#247
#248	#249		

As shown in the lower figure, one screen can cover up to 36 pieces of music using a maximum of nine lines.

SCREEN DISPLAY BETWEEN PLACES OF MUSIC

1. Hit chart (best hit) screen



Display timing ····· during the stand-by for music selection and during the searching operation

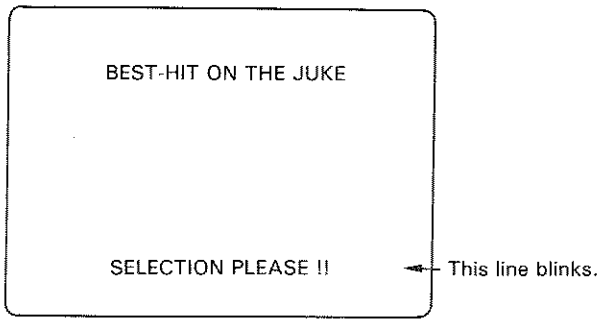
In the left-hand example, #245 is being searched for and is among the best five pieces of music.

In the example shown in the lower figure, the hit chart is uncompleted and no music reservation is entered.

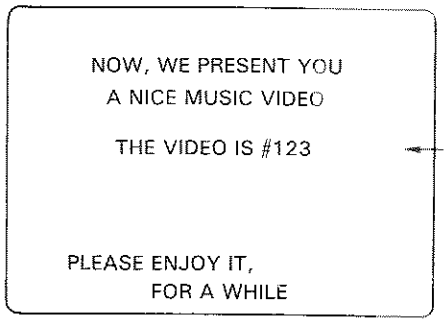
Note 1:
The hit chart is renewed on a basis of the number of times a piece of music is selected.

Note 2:
Nothing is displayed until five or more pieces of music are selected (uncompleted).

Note 3:
The inhibited pieces of music are deleted starting from those included in the hit chart. Therefore, when #134 is searched for but not found in the example shown in the upper left figure, #134 is excluded from the hit chart. When the number of the pieces of music is below five, the entire hit chart disappears as shown in the lower figure.



2. Promotion play guide screen



Display timing ····· before promotion play

Display timing ····· after promotion play

Note 1:
These screens appear even when CHR: OFF.

MUSIC SELECTION

OPERATION

Ordinary Selection

- Enter the three-digit number by using numeric keys.
- The selection can be canceled by pressing the CLEAR key before entering the last digit.

One-Touch Selection

- Press the BEST HIT key to select the most-popular pieces of music on the location.

PLAYBACK ORDER

- Playback is mode by arranging the reserved selection in a certain order.
- Multiple selections are played only once. (over-play)

PRINTER OPERATION

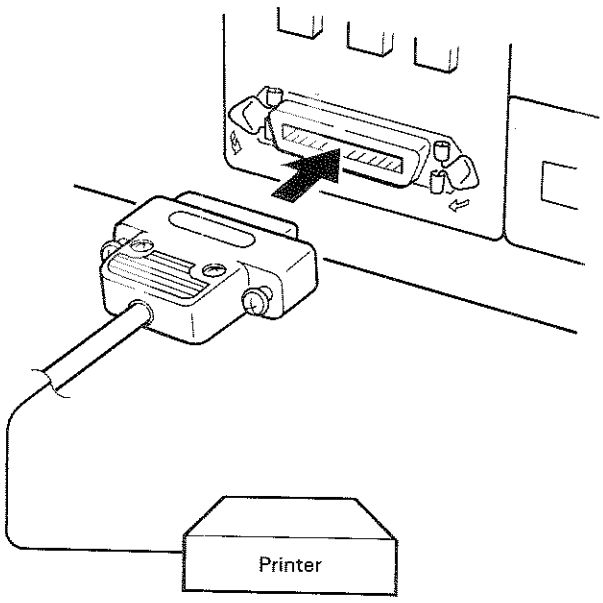
Printers available on the market can be used to output the following items:

Output (1)

① ID code
② Income counter
③ Total number of music selections
④ Count by discs (in numeric order)
⑤ Count by music pieces (in numeric order)

Output (2)

⑥ Total number of music selections.
⑦ Count by discs (in order of popularity)
⑧ Count by music pieces (in order of popularity)



START button

Outputs the memorized data in the following manner:

- Press START to output No. ① to ⑤.·····Output (1)
- Press START again to output No. ⑥ to ⑧.·····Output (2)
- After the above, press START to repeat (1) and (2).

STOP button

Stops printout.

Example
Stops during the output of item (1) above → Resumes from (2).
Stops during the output of item (2) above → Resumes from (1).

When the STOP button is pressed while the printer is stopped, the paper is fed.

MEMORY CLEAR button

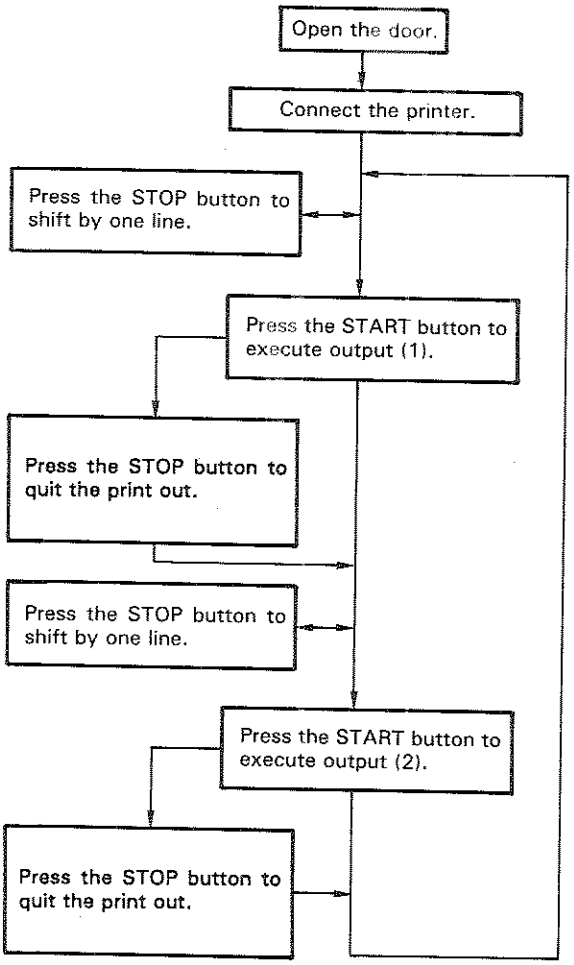
Deletes the data stored in the memory unit for the number of music selections.

Items deleted	Items not deleted
• Number of times music is selected by discs • Number of times music is selected by music pieces • Total number of times music is selected • Best-hit tunes • Number of coins counted	• List of inhibited tunes • ID codes • Reserved tunes

* The contents of advertising disc learning is deleted when the door is opened.

Operation procedure

Data printout


Open the door.
Connect the printer.
Press the STOP button to shift by one line.
Press the START button to execute output (1).
Press the STOP button to quit the print out.
Press the STOP button to shift by one line.
Press the START button to execute output (2).
Press the STOP button to quit the print out.

Interface specifications

This printer incorporates a CENTRONIX-based 8-bit parallel interface. A 36-pin AMPHENOL type connector is used. Input and output signals used are as follows:

Input/output signal chart

Pin No.	Name of signal	I/O	Description
1	STROBE	OUT	Strobe pulses for data output
2 ⟆ 9	DATA 0 ⟆ DATA 7	OUT	Data
10	ACK	IN	NOT USED
11	BUSY	IN	Signals to indicate that this system is busy during data processing
12~15	NC		No-connection
16~17	GND		
18	NC		No-connection
19~30	GND		Twist-pair-return signals
31~32	NC		No-connection
33	GND		
34~36	NC		No-connection

* Input and output are indicated viewed from this system.

Selection Count data.

When a music is selected by reffering the MENU and operation of the numeric keys, the selection count data of the piece and the total number of selection.

The number of times the BEST HIT key is counted as the total. The selection count data of the piece which is selected by pressing the BEST HIT key, is not incremented.

Printout sample

Output (1)

```
    PIONEER
  LASER JUKEBOX

===============
ID=66000000252
INCOME ----80

===============
SELECTION COUNT
 TOTAL ----40
 (MENU ----30)
 (BEST ----10)

INVALID ---13

===============
[ALL DATA/DISC]
  NO.   COUNT
DISC[10]----2
DISC[11]----7
DISC[12]----5
DISC[13]----3
DISC[14]----5
DISC[15]----7
DISC[16]----1
DISC[17]----0
DISC[18]----0
DISC[19]----0
DISC[20]----0
DISC[21]----0
DISC[22]----0
DISC[23]----0
DISC[24]----0

===============
[ALL DATA/TUNE]
  NO.   COUNT
 #100-------0
 #101-------0
 #102-------0
 #103-------0
 #104-------1
 #105-------0
 #106-------0
 #107-------0
 #108-------0
 #109-------1
 #110-------0
 #111-------0
 #112-------0
 #113-------1
 #114-------1
 #115-------0
 #116-------0
 #117-------1
 #118-------3
 #119-------1
 #120-------0
```

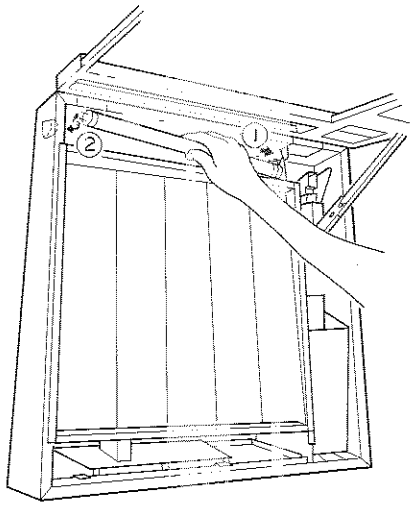
Output (2)

```
===============
SELECTION COUNT
 TOTAL ----40
 (MENU ----30)
 (BEST ----10)

INVALID ---13

===============
[ORDERED/DISC]
(DISC[10]-[16])
  NO.   COUNT
DISC[11]----7
DISC[15]----7
DISC[12]----5
DISC[14]----5
DISC[13]----3
DISC[10]----2
DISC[16]----1

===============
[ORDERED/TUNE]
  (#100-#169)
  NO.   COUNT
 #118-------3
 #128-------2
(#134-------2)
(#142-------2)
(#143-------2)
(#154-------2)
(#159-------2)
(#104-------1)
(#109-------1)
(#113-------1)
(#114-------1)
(#117-------1)
(#119-------1)
(#123-------1)
(#124-------1)
(#129-------1)
(#138-------1)
(#141-------1)
(#155-------1)
(#156-------1)
(#157-------1)
(#160-------1)
   OTHERS---0
```

MAINTENANCE

1. CHANGING THE FLUORESCENT LAMP

- Turn off the power before changing the fluorescent lamp.
- Open the door and change the fluorescent lamp (15 W) on the menu board.

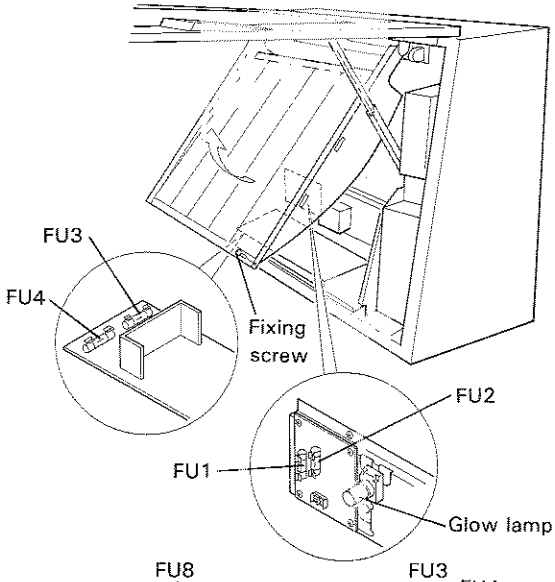


2. CHANGING THE GLOW LAMP AND FUSES

1 Selection commander

- Turn off the power before changing the fuses.
- Open the door.
- Remove the fixing screws from the menu board and lift the menu board.
- Change the glow lamp and fuses.

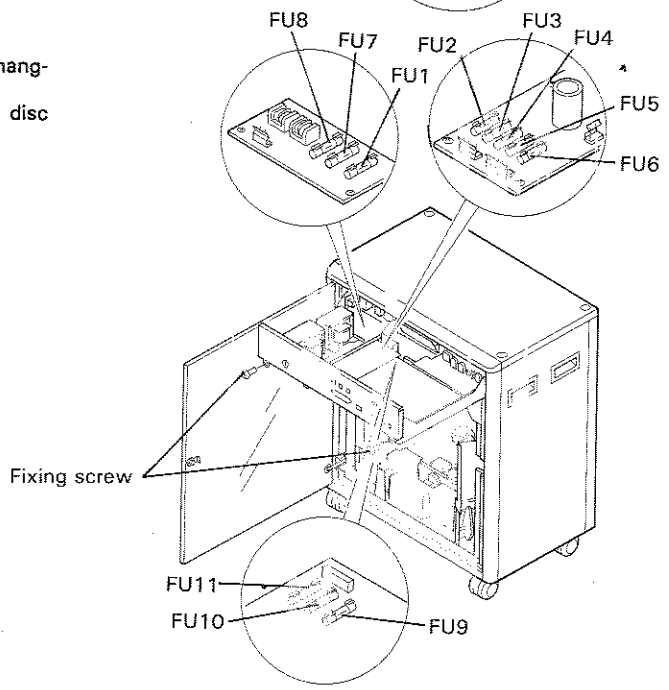
FU1 (3.15A) : main fuse
FU2 (0.63A) : for fluorescent lamp
FU3 (0.63A) : for commanders
FU4 (1.25A) : for commanders



2 Video disc autochanger

- Remove the power cord from the wall outlet before changing the fuses.
- Remove the fixing screws from the panel on the disc storage and pull the panel towards you to change.

FU1 (3.15A) : for AC OUTLET
FU2 (2.5A) : for video disc autochangers
FU3 (2.5A) : for video disc autochangers
FU4 (3.15A) : for video disc autochangers
FU5 (3.15A) : for video disc autochangers
FU6 (4A) : for video disc autochangers
FU7 (1.25A) : main fuse
FU8 (1.25A) : main fuse for commanders # 2 and 3
FU9 (4A) : for commander #1 AC22V
FU10 (4A) : for commander #2 AC22V
FU11 (4A) : for commander #3 AC22V



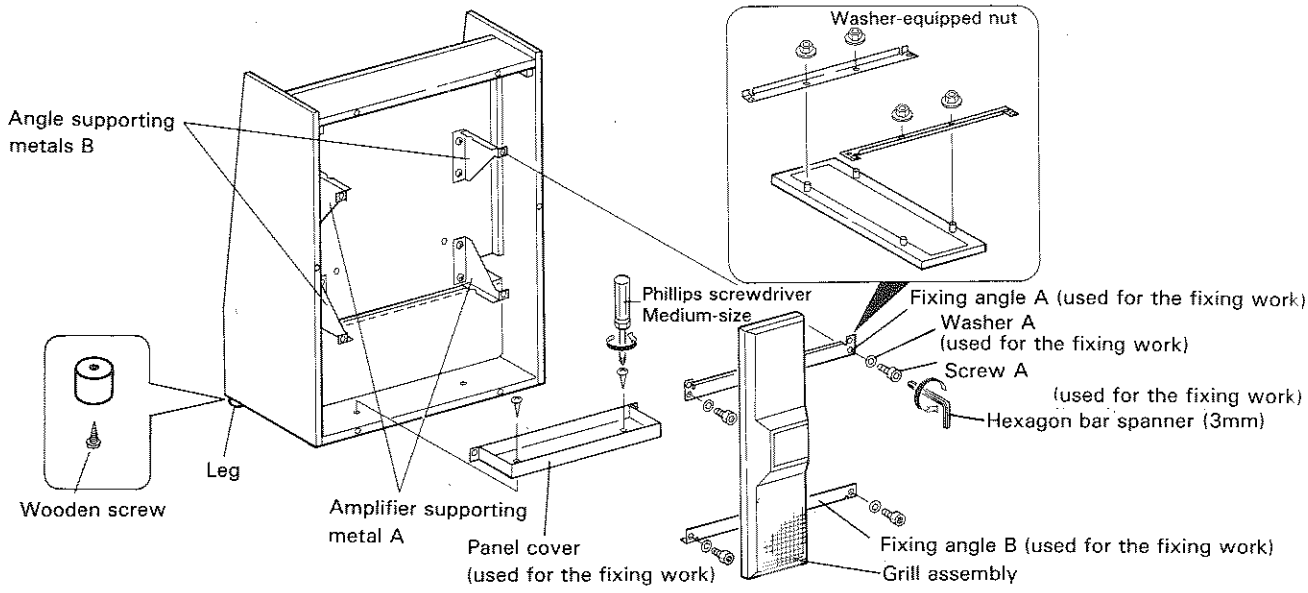
For the names of assembly parts, see page 39.

ASSEMBLY DRAWING (1)

CB-V2520-K/CB-V2520 (LASER JUKE SYSTEM RACK)

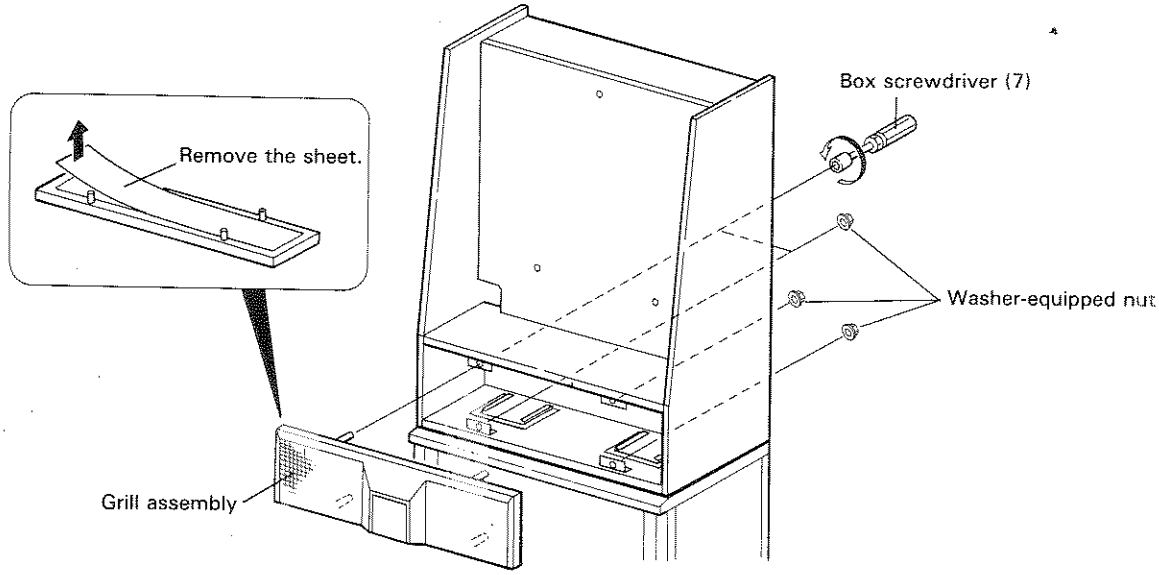
Things to be prepared:

- First remove the panel cover, speaker grill and fixing angles A and B fixed to the rear of the system rack.


Washer-equipped nut
Angle supporting metals B
Phillips screwdriver Medium-size
Fixing angle A (used for the fixing work)
Washer A (used for the fixing work)
Screw A (used for the fixing work)
Hexagon bar spanner (3mm)
Leg
Wooden screw
Amplifier supporting metal A
Panel cover (used for the fixing work)
Fixing angle B (used for the fixing work)
Grill assembly

FIX THE GRILL ASSEMBLY.

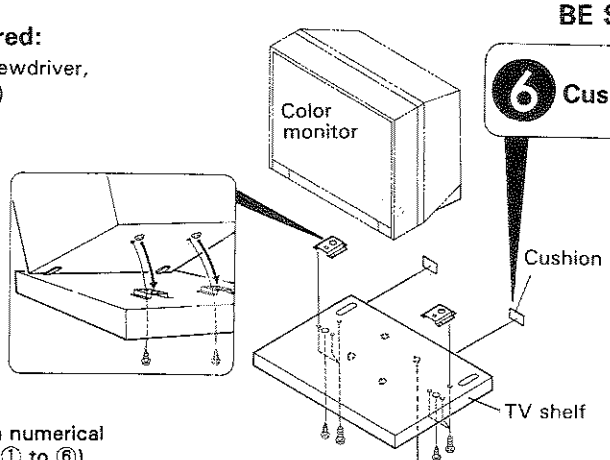
- To fix the speaker system to this rack, remove the sheet from the back of the grill assembly as shown in the figure below. (When the speaker system is not to be set, keep the sheet attached.)



ASSEMBLY DRAWING (2)

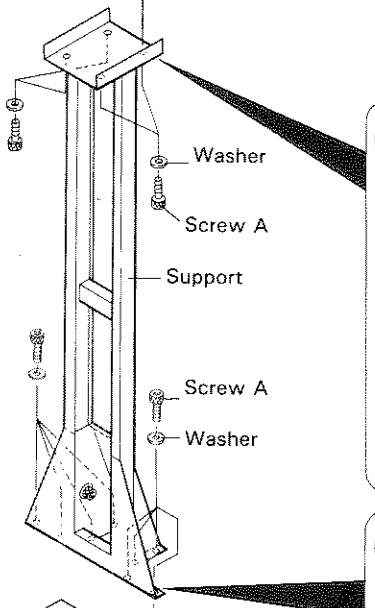
BE SURE TO FIX THE COLOR MONITOR.

Things to be prepared:
medium-size Phillips screwdriver,
hexagon bar spanner (6)



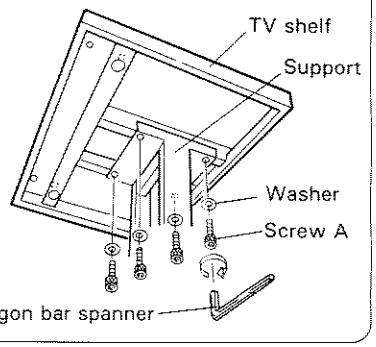
6 Cushion attachment

Assembly in numerical order (from ① to ⑥)

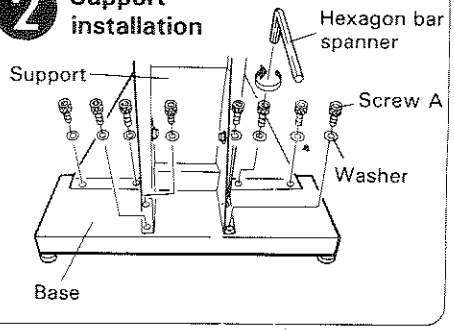


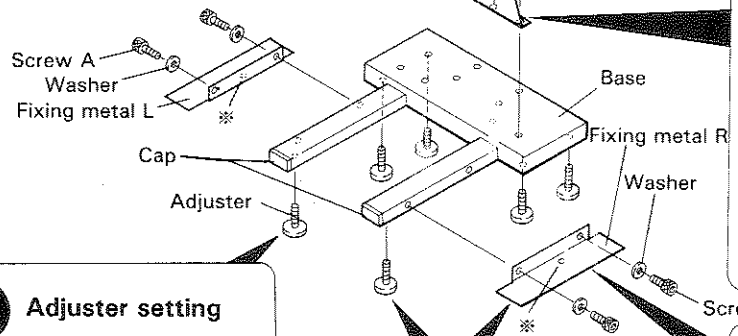
※ **Use these holes to fix this stand securely to the floor.**

3 TV shelf installation



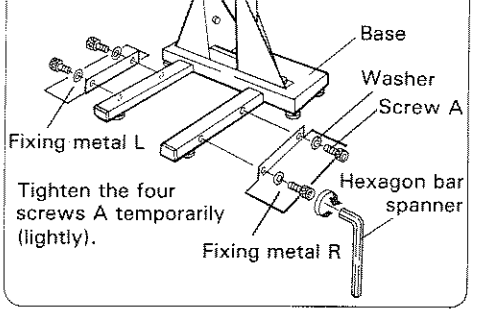
2 Support installation





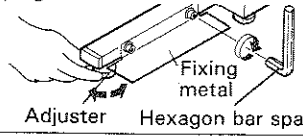
1 Adjuster setting

4 Fixing metal setting



5 Rattle elimination

① Make sure the screws other than those to be temporarily tightened are fully tightened.
② Turn the adjusters to make them contact the floor completely.
③ Push down the fixing metals to make them contact the floor completely. Tighten the temporarily-tightened four screws A.

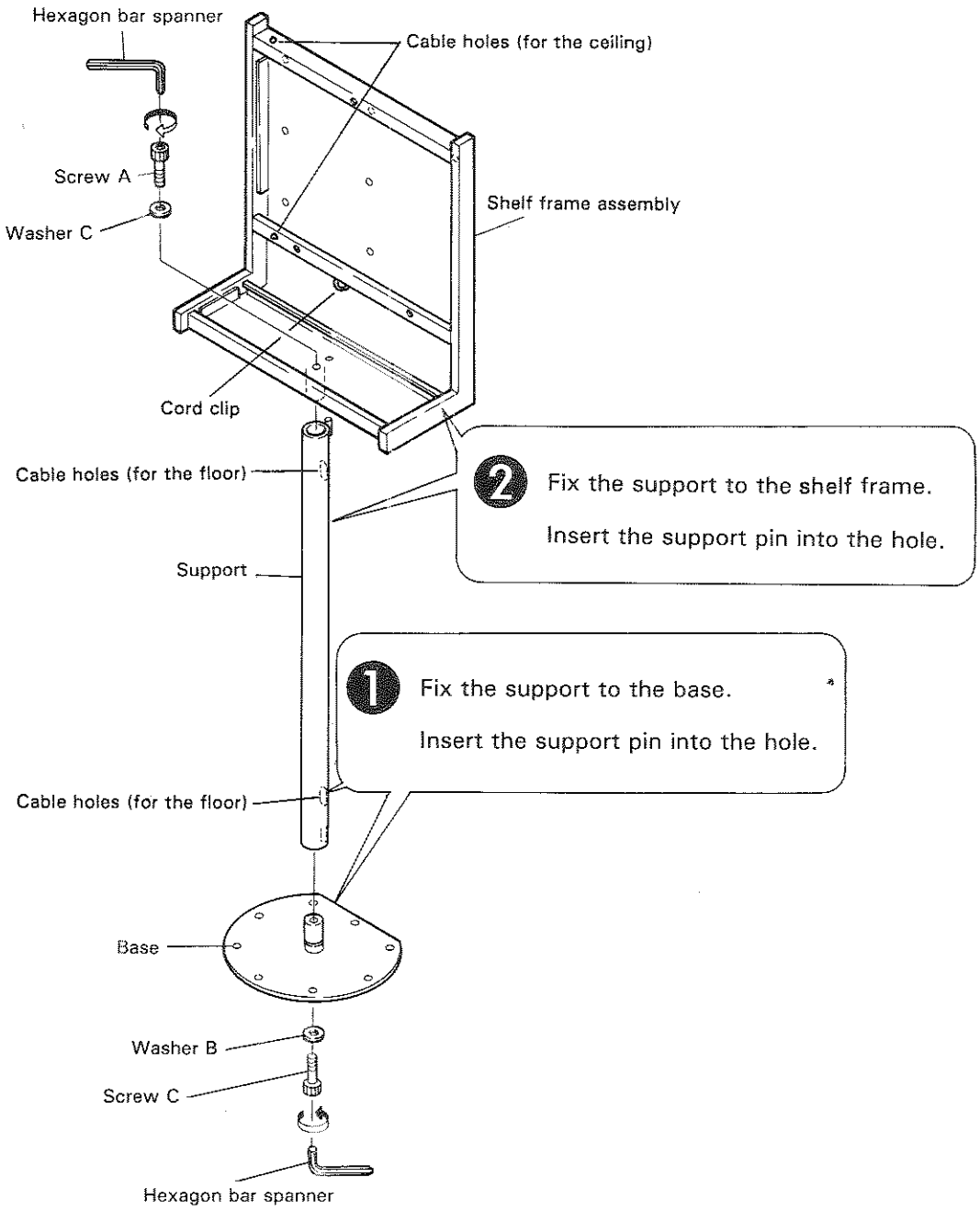


ASSEMBLY DRAWING (3)

BE SURE TO FIX THIS STAND TO THE WALL AND FLOOR

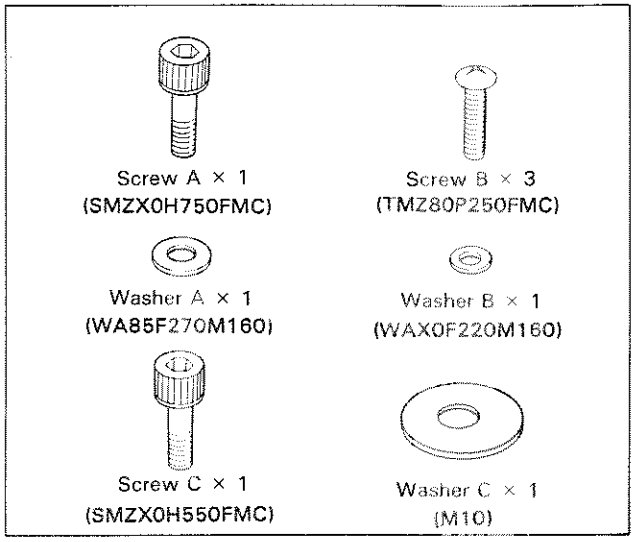
Things to be prepared:

large-size Phillips screwdriver, hexagon bar spanner (8)

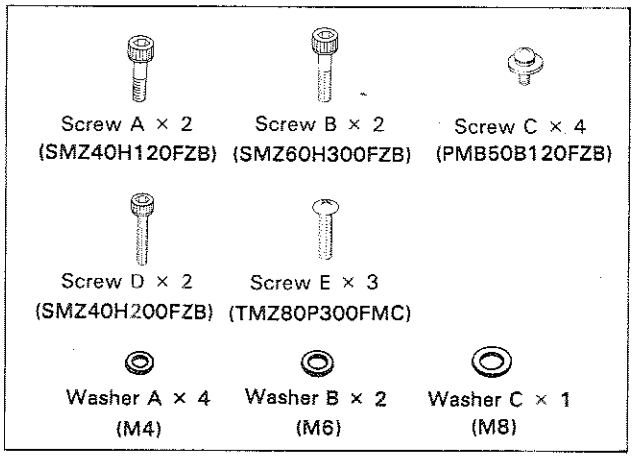


NAMES OF ASSEMBLY PARTS

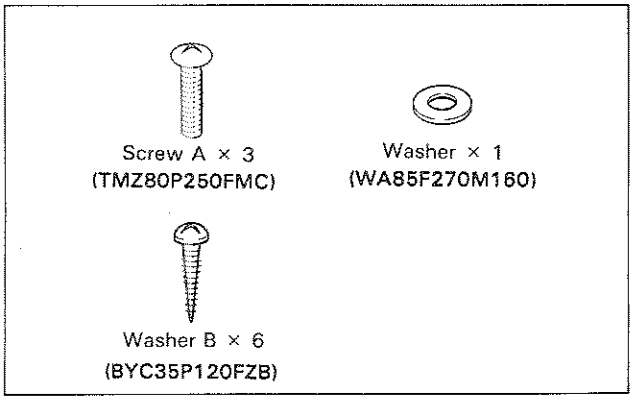
SELECTION COMMANDER STAND
CB–V2540



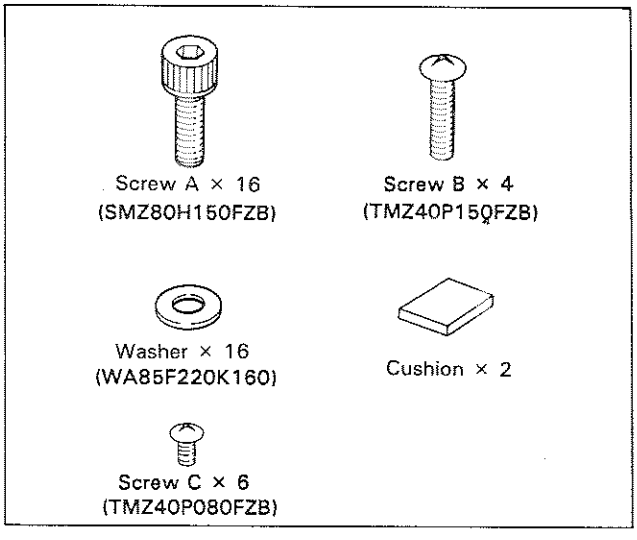
LASER JUKE SYSTEM RACK
CB–V2520–K
CB–V2520



SELECTION COMMANDER WALL MOUNT KIT
CB–V2560



LASER JUKE MONITOR STAND
CB–V2530



SPECIFICATIONS

LJ-V20-K/LJ-V20 (SELECTION COMMANDER)

Power requirements ..... 22 VAC, 50 Hz
Power consumption ..... 37 W
Outside dimensions ..... 603 (W) × 605 (H) × 240 (D) mm
Weight ..... 25 kg
Allowable operating temperature ..... +5°C to +35°C
Allowable operating humidity ..... 5% to 90%
Max. number of selectable music numbers ..... 99 numbers
Accessories
- Rate seal ..... 1 set
- ND sheet 2
- locking plate 1
- Coin sheet ..... 1 set

LC-V20-K/LC-V20 (VIDEO DISC AUTOCHANGER)

Player model ..... LaserVision video disc player
Applicable discs ..... Laser juke disc
Power requirements ..... AC 220V/240V (Switchable), 50 Hz
AC outlet
- SWITCHED ..... 2 (TOTAL 500 W MAX)

Power consumption ..... 246 W
Outside dimensions ..... 642 (W) × 780 (H) × 425 (D) mm
Weight ..... 64.5 kg
Allowable operating temperature ..... +5°C to 35°C
Allowable operating humidity ..... 5% to 90%
Video output
- Output level ..... 1 Vp-p (when a 75 Ω load is applied, synchronous and negative)
- Output terminal ..... pin jack

Sound output
- Output level ..... 500 mV (100% modulation, 47 kΩ load)
- Output terminal ..... stereo pin jack

Headphone output
- Output level ..... 650 mV (100% modulation, 32 Ω load)
- Output terminal ..... stereo mini-jack

Printer output ..... 8-bit parallel (CENTRONIX-based)
Functions
- Discs 20
- Noise reduction ..... automatic switchover CX on (not switchable)
- Advertising play ..... ON/OFF
- Programmed music selection ..... Max. 99
- Best hit selection ..... Max. 5
- Selection count output ..... Output to printer with Centronics 8-bit parallel interface possible
- Selection commander ..... Up to 3 can be connected
- Coin accepter ..... MS-111 made by MARS (option) SENTINEL 30/35 made by COIN CONTROL LTD. (option)
- Menu display ..... Max. 150
- Coin capacity ..... Over 2,500 (21.4mm diameter × 1.7mm thickness)

Accessories
- Audio cord 1
- Video cord 1
- Terminal cover 1
- Cord clamper 3
- Control cord 1
- Operating instructions 1
- Key 1

CX is a trade mark of CBS Inc.
This unit meets the CX EXPANDING SPECIFICATION.

CB-V2520-K/CB-V2520 (LASER JUKE SYSTEM RACK)

Outside dimensions: ..... 643 (W) × 813 (H) × 375 (D) mm
Weight ..... 20 kg
Material ..... Particleboard

CB-V2530 (LASER JUKE MONITOR STAND)

Outside dimensions ..... 680 (W) × 1,659 (H) × 623 (D) mm
Weight ..... 40 kg
Material ..... steel
Mounted weight limit TV shelf ..... 50 kg

CB-V2540 (SELECTION COMMANDER STAND)

Outside dimensions ..... 570 (W) × 1,567 (H) × 300 (D) mm
Weight ..... 18.5 kg
Material ..... steel

CB-V2560 (SELECTION COMMANDER WALL MOUNT KIT)

Outside dimensions ..... 500 (W) × 478 (H) × 13 (D) mm
Weight ..... 1.2 kg
Material ..... steel

POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.